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**THE DETERMINANTS OF THE GROWTH
OF BLACK OWNED BUSINESSES
A PRELIMINARY ANALYSIS**

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EXECUTIVE SUMMARY	
CHAPTER I: INTRODUCTION	
CHAPTER II: LITERATURE REVIEW.....	
Overall Impact of Lack of Markets or Declining Markets	
Impact of Capital Resource and Supply- Side Constraints	
a. Overall Analyses	
b. Small Business Administration Assistance	
c. Black Commercial Banking	
Effect of Limited Business Human Capital	
Effect of Racial Discrimination	
An Overall Analysis of Supply and Demand Factors	
Limitations of Previous Work and Contrasts with Present Study	
CHAPTER III: METHODOLOGY AND RESEARCH DESIGN	
Overview	
Model and Hypotheses	
Principal Independent Variables	
Measurement of Dependent Variables	
Basic Regression Model	
Sources of Data	
CHAPTER IV: FINDINGS OF THE STUDY	
Descriptive Findings	
a. Firms Per 1000 Black Population	
b. Receipts Per Capita	
c. Firm Scale	
d. Variation in SBA Activity and Black Median Family Income	
Regression Results	
a. Growth in Receipts	
b. Growth in Number of Firms	
c. Firms with Paid Employees	
d. Paid Employment	
e. Quantitative Impact of Significant Variables	

LIST OF TABLES

Page

TABLE 1:	PRINCIPAL INDEPENDENT VARIABLES	38
TABLE 2:	DATA SOURCES	43
TABLE 3:	GROWTH IN FIRMS PER 1000 BLACK POPULATION IN SMSA's BY REGION	48
TABLE 4:	GROWTH IN SALES PER CAPITA IN SMSA's BY REGION	51
TABLE 5:	CHANGE IN FIRM SCALE IN SMSA's BY REGION	54
TABLE 6:	DISTRIBUTION OF SBA LOANS IN SMSA's BY REGION, 1971 and 1972	56
TABLE 7:	DISTRIBUTION OF SBA LOANS IN SMSA's BY REGION, 1976 and 1977	57
TABLE 8:	CHANGE IN SBA LOANS TO SMSA's BY REGION	58
TABLE 9:	MEDIAN BLACK FAMILY INCOME IN SMSA's BY REGION, 1972	61
TABLE 10:	MEDIAN BLACK FAMILY INCOME IN SMSA's BY REGION, 1977	62
TABLE 11:	GROWTH IN MEDIAN FAMILY INCOME IN SMSA's BY REGION	63
REGRESSION TABLE 1:	Change in Black Receipts Per Capita	68
REGRESSION TABLE 2:	Change in Number of Black Firms Per 1000 Black Population	72
REGRESSION TABLE 3:	Change in Black Firms with Paid Employees Per 1000 Black Population	76
REGRESSION TABLE 4:	Changes in Paid Employment Per 1000 Population	78

Appendix A:	.....	9
Summary Statistics for Variables by Year		
Appendix B:	.....	9
B.1 Sales Profile of Standard Metropolitan Statistical Areas, 1972 and 1977		
B.2 Twenty Highest Ranking SMSA's by Receipts Per Capita, 1972 and 1977		
B.3 Twenty Lowest Ranking SMSA's by Receipts Per Capita, 1972 and 1977		
B.4 Twenty Highest Ranking SMSA's by Increase in Receipts/Capita		
B.5 Twenty Lowest Ranking SMSA's by Increase in Receipts/Capita		
Appendix C:	.....	10
C.1 Firm Profile of Standard Metropolitan Statistical Areas, 1972 and 1977		
C.2 Twenty Highest Ranking SMSA's by Firms Per 1000 Black Population		
C.3 Twenty Lowest SMSA's by Firms Per 1000 Black Population		
C.4 Twenty Highest SMSA's by Increase in Firms Per 1000 Black Population		
C.5 Twenty Lowest SMSA's by Increase in Firms Per 1000 Black Population		
Appendix D:	.....	11
SBA Loans by Standard Metropolitan Statistical Area		
Appendix E:	.....	12
Black Commercial Bank Loans By SMSA		
Appendix F:	.....	12
Correlation Matrix		

CHAPTER 1 - INTRODUCTION

Expanding Black business ownership has been an item on the nation's social agenda for more than a decade. The principal motivation for the interest in this policy has been provided by the general awareness of the present low rate of minority participation in the ownership of American business.

The proportion of businesses owned by Blacks is about seven times smaller than the proportion of Blacks in the national population. The share of receipts received by Black owned businesses is about 50 times smaller than the proportion of Blacks in the population.

In 1979 the 1000th largest American industrial corporation had sales that were approximately twice that of the top Black corporation. The sales of all 100 Black owned firms on the Black Enterprise list combined rank below the sales of the 250th largest firm on the Fortune list in each year from 1972 through 1978. Employment in Black owned firms was equal to about .4 percent of total U.S. employment in each year and about four percent of total Black employment in both 1972 and 1977.

It is clear that existing Black owned businesses are few in number, relatively small, and disproportionately found in a few industries. The strikingly low participation rates of Blacks as owners of businesses is one of the most glaring inequalities remaining in our society. It indicates a limited opportunity for Blacks to exercise the power and influence that is associated with business ownership and thus, precludes their participation as full partners in the American dream. The

limited business ownership is also probably related to the high rates of poverty, unemployment and other economic disadvantages faced by Black populations in communities throughout the country.

Since the mid 1960s, Federal policymakers have been engaged in an effort to develop strategies that would improve the rate and character of minority participation in the ownership of American businesses.

It is likely that business development strategies will have to play a larger role in future efforts to improve the position of minorities in the United States. However, a new business development strategy will require much better information than is currently available concerning the role and importance of various causes, solutions, and impacts.

Previous research on this topic has raised a number of hypotheses about the potential for expanding the Black owned business sector and the factors which determine the rate of growth of business ownership. However, because of data and methodological limitations, these studies have not provided convincing empirical test of these hypotheses. This research project was undertaken to increase understanding of the determinants of the rate of growth of the minority business sector.

This study represents one of the first attempts to do a rigorous empirical analysis of the historical growth experiences of Black owned business sectors in SMSA's with more than 100 Black firms. Our analysis incorporates many of the

explain this variation.

This study takes a decidedly macro approach and concentrates on determining the impact of a variety of macro factors on the overall rate of growth of Black business ownership. We have specifically investigated the determinants of the growth rate for the entire Black business sector of each SMSA containing 100 or more Black businesses.

The major research questions addressed in this study are:

1. How did growth patterns vary across the several SMSA's between 1972 and 1977?
2. What factors if any, explain this variation in performance of the various Black Business sector?
3. What is the relative quantitative importance of each of the explanatory factors?
4. What do the findings suggest about the prospects for expanding Black business ownership?
5. What are the policy implications of the analysis?

CHAPTER 2 - LITERATURE REVIEW

The existing literature on Black business ownership has been principally concerned with explaining the relatively underdeveloped character of the Black business sector. In general, previous research does not include any direct analysis of the determinants of the overall rate of growth of the Black owned business

factors that should influence the rate of growth of the Black owned business sector. Four factors have been consistently put forward in the literature as possible explanations for the limited development of Black business ownership: limited market demand, limited capital resources, limited efficiency (human capital, small scale), and racial exclusion (discrimination).

Limited Demand

The limited market size argument appears in the literature many times. This argument suggests that the Black owned business sector has little growth potential because it is restricted to serving the Black community. This restriction is seen as a result of segregation, discrimination and choice. It is argued that given the limited demand which results from the relatively limited incomes, high rates of unemployment, poverty, and cyclical instability characteristic of the Black community the growth potential of Black businesses are limited.

This literature taken as a whole strongly suggests that the propensity of Black businesses to serve an almost exclusively Black clientele is a major cause of the low level and rate of growth of Black business ownership. However, little concrete evidence is offered to support this speculation. This literature suggests, on the one hand, that a high degree of segregation in markets for business output should be a positive factor in the level of Black business ownership. However, the literature is not consistent on the impact of desegregation on Black business development. Some authors suggest that desegregation should hurt Black businesses by removing a protective barrier against competition. Some authors seem to imply that desegregation should help by opening up access to broader

Black business ownership. However, there is also the argument that increased affluence will cause Black consumers to seek purchases in the White sector and might also induce more competition from the White business sector. In short, the predictions of this literature are ambiguous.

Limited Access To Capital

Another factor that has been traditionally recognized as a barrier to Black business ownership is a general limited access to capital. For authors who emphasize the lack of available capital this factor plays a more significant role than limited market size.

Their studies suggest the view that Black businesses have been concentrated in the traditional industries because these small scale businesses consistently require significantly less capital than businesses in construction, manufacturing and wholesale trade.

Although the literature in general does not provide any direct empirical test of the independent role of limited capital availability, this literature does suggest that limited capital is a major constraint. This suggests that areas with greater access to capital should experience higher rates of growth.

Another body of literature relevant to understanding the importance of the capital constraint focuses on studying the impact and role of the Small Business Administration. The discussion of the importance of capital might lead one to expect that the provision of loan capital by the SBA could lead to higher rates of

There were no studies that analyzed the impact of SBA loan programs on the overall rate of growth of Black businesses.

The SBA literature as a whole would tend to suggest that SBA lending programs are not effective in generating growth among the Black business sector. However, none of these studies performed any direct analysis of the impact of the aggregate level of SBA loans on the overall rate of growth of the Black business sectors in the various SMSA's.

One final set of studies that are relevant to the capital availability factor is those studies which have explored the role of Black banks in financing minority business enterprises. The major issue is whether or not the existence of Black banks generally imply greater access to capital for Black owned businesses.

This literature, therefore, suggests that Black banks may be a factor in increasing the rate of growth of the Black business sector. However, the literature as a whole seem to suggest that the banks should not be expected to be a major factor because of their small size and relatively conservative banking practices.

Limited Business Capital

Several authors have focused on the lack of business capital (formal training, business knowledge, experience, management skills) as the dominant explanation for the limited development of the Black owned business sector. According to these authors limited business capital leads Black businesses to low efficiency and low profits. This in turn reduces their ability to compete for proportionate market

explanation for why Black businesses have high failure rates, skewed industry distributions, low size, poor credit ratings, and other characteristics associated with the limited development of the Black owned business sector. In general, these conclusion were based on survey evidence which indicated that many of the respondents had limited education, business knowledge, managerial skills etc. However, no empirical test of the connection between the limited business capital and the low level of Black business ownership was performed by any of these authors. In one study which did conduct an empirical test, minority firms were found to be no less profitable than majority firms after controlling for structural factors. However, this study is not inconsistent with the earlier literature if the structural factors are not independent of the limited business capital. These studies do suggest that the rate of growth of Black owned businesses should be related to the level of human capital available to the business sector.

Racial Discrimination

Racial discrimination has also been highlighted as a primary cause of low minority business growth rates, low formation rates and high business failures. The authors which emphasize this cause argue that racial discrimination limits access to markets, limits access to financial capital, limits access to business knowledge and contacts, limits access to credit and risk capital, and in general, impedes the full participation of Black business owners in American commerce. These limits in turn reduces the ability of Black firms to operate efficiently and/or to earn a normal profit. It forces Black firms to remain small and operate in a limited sequent of the market.

Nonetheless, this literature does suggest that Black business sectors ought to perform better in SMSA's generally characterized by less discrimination.

Limits of Existing Literature

The review of the literature suggests that, on the whole, previous studies are circumscribed by some combination of five limitations. These limitations include: (1) overdependence on voluntary, self-reported questionnaire data; (2) nonrecognition of inherent response and selection bias in the type and number of firms analyzed; (3) restriction to single point-in-time data; (4) the exclusive use of internal factors of the firm with no allowance for larger economic forces; and (5) little or no explicit methodology to investigate factors of change and growth in minority business enterprise in its entirety.

This present study in contrast to the existing literature will incorporate as explanatory variables SMSA-specific macro factors concerning local economic conditions, ability to expand capacity, ability to compete and government financial assistance policy. It will also be the first study to incorporate such a framework into a set of complete count data of 187,602 Black-owned firms in 1972 and 231,000 Black-owned firms in 1977 -- thereby avoiding the response and selectivity bias so prevalent in previous work.

CHAPTER 3 - METHODOLOGY

The general model utilized in this study is a somewhat ad-hoc formulation based on the Black business literature and general theoretical considerations. In this formulation growth of Black business ownership (G) is postulated to be

Major Hypotheses

Conditions in the local economy are incorporated as major determinants of the overall level of demand for the products of Black owned businesses. It was postulated that the demand for products of Black owned businesses would be higher in a healthy local economy. Therefore, it was hypothesized that a positive relationship should exist between indicators of a healthy local economy and the rate of growth of Black businesses.

On the other hand, much of the literature argues that Black owned businesses serve primarily a Black clientele. If this is true, then the demand for Black businesses would be more closely related to the economic health of the local Black community than to the general local economy. This implies that the demand factor should include variables which measure the specific economic condition of the local Black population. This reasoning supports an hypothesis that variations in the economic health of local Black communities is an important determinant of inter-SMSA variation in the rate of growth of Black businesses.

The availability of resources which determines the ability to expand capacity is a second factor which we hypothesized to have an impact on the rate of growth of the minority business sector. Clearly, the ability to grow is constrained by the availability of sufficient resources to expand supply capacity. The most significant resource constraints identified in the literature are the availability of capital and the availability of potential entrepreneurs and managers. We hypothesized a

ownership.

Since Black businesses operate in essentially the same markets as non-Black businesses they must be able to compete. The major determinants of the ability of Black firms to compete identified in the literature are the degree of discrimination, market segregation, and the relative efficiency of Black enterprises. We hypothesized that the degree of segregation of the Black market and the relative efficiency of Black businesses would be positively related to the rate of growth of Black businesses while discrimination is hypothesized to have a negative impact on Black business growth.

Government policy influences the rate of growth of Black owned businesses through their impact on the above three factors. Government policies which increase demand, expand supply capacity, or improve the ability to compete are hypothesized to have a positive relationship to the rate of growth of the minority business sector.

Indicators of Growth (Dependent Variables)

We used three different indicators of the level of minority business activity in this study: the number of firms, the amount of receipts, and the number of employees. Thus our study explored the determinants of the change in per capita receipts, number of firms per thousand persons, and numbers of paid employees per capita between 1972 and 1977. The analysis was focused primarily on the rate of growth for the Black business sector overall. However, an equation was estimated separately for growth in the number of firms with paid employees as well.

The sources of data for our dependent variables (namely the number of firms, gross receipts, and paid employment of Black business enterprises in 1972 and 1977) were the 1972 and 1977 Survey of Minority-Owned Business Enterprises, Black (Bureau of the Census). We obtained from the Bureau of the Census through the Minority Business Development Agency special tabulations which corrected for data errors in the published 1972 survey. Data used to measure the various independent variables were obtained from a variety of published and non-published sources.

CHAPTER 4 - FINDINGS

Descriptive Findings

Although the overall level of Black business ownership is limited, there is wide variation in the level of ownership among the 155 SMSA's examined. While the mean number of firms per thousand Black population in 1972 was 8.5, the range of firms per thousand population varied from a low of 4.2 to a high of 18.0. In 1977, the range of firms per 1000 population went from a low of 5.1 to a high of 30.0 with the mean number of firms per 1000 at 9.9.

A more important point for our purposes, however, is the fact that there was also wide variation in the rate of growth in number of firms among these SMSA's between 1972 and 1977. We found that 12.3 percent of the SMSA's had negative or zero growth in number of firms per 1000 population. Nearly 77 percent of the SMSA's had 2 or fewer net new firms formed per 1000 population, 23.2 percent had a net increase of more than 2 new firms per 1000 population, and nearly 6 percent had a net increase of more than 4 new firms per 1000 population. The range of

The variation in receipts per capita of Black businesses was also fairly large. Per capita receipts in nominal terms ranged from \$48 to \$917 in 1972, and from \$93 to \$1775 in 1977. The mean amount of receipts or gross sales per capita was \$246 and \$344 in 1972 and 1977, respectively.

More importantly, for the purposes of our study, there was also a wide range of growth rates in per capita receipts. The range of growth in per capita receipts between 1972 and 1977 was from -\$390 to \$858. Growth in per capita sales by SMSA regional location also showed that a systematic relationship exists between regional location and sales growth.

Overall, the SMSA's ranked lowest in terms of both number of firms and receipts appear to be disproportionately concentrated in the South in 1972 and 1977, while the SMSA's ranked highest in terms of firms and receipts appear to be disproportionately concentrated in the West. The West dominated the highest rankings among growth measures of per capita receipts and number of firms per 1000 population. The industrial cities of the Northeast and Northcentral along with some Southern cities dominated the list of slowest growing places. (See tables in Appendix)

Two other variables were found to differ by SMSA-regional location: SBA lending activity and median Black family income. Descriptively, it is apparent that SMSA's of the South over the 1971-1972 period were disproportionately underrepresented as recipients of SBA funds. Though there were some

In both 1972 and 1977, the South had the largest proportion of SMSA's with low levels of Black median family income. The SMSA's of the North Central and the Northeast were the most affluent in 1972. However, by 1977, the SMSA's of the West had become the most affluent while the North Central and the Northeast had generally lost ground.

Regression Results

Regression equations were estimated for each of the four measures of growth utilizing proxies to represent the four factors discussed above. We generally found that each measure of growth appeared to capture a different aspect of the growth process. Our model accounted for a significant amount of the observed variation in each instance. And except for the employment equation, many of the independent variables appeared to be significant explanans of the observed variations in the dependent variables.

Growth in Receipts

The results of our estimate of the model to explain growth in receipts per capita is shown in Regression Table 1. The model performs reasonably in explaining the observed variation in receipt growth among the various SMSA's, the equation is highly significant, and eleven of the variables were statistically significant.

The overall results offer moderate support for the hypothesis that variations in local demand conditions are an important determinant of growth in receipts.

significant in all regions. Moreover, although the increase in the Black population did not register high significance its impact was positive and of a relatively large magnitude. The results suggest that the business cycle and the level of Black family income are important factors in determining the growth in receipts. The results provide modest support for the hypothesis that conditions in the Black community are more important than general conditions in the local economy.

The results also suggest that the availability of resources is an important factor. Both the initial levels of professionals and managers in the Black community and the change in the level of professionals and managers were significant variables. The level of Black bank loans in 1972 the level of SBA loan activity in 1972 and the change in SBA loan activity between 1972 and 1977 were all significant and all had the expected signs. The availability of both potential entrepreneurs and the availability of capital appear to be positively related to growth in receipts.

The results, in general, do not support the hypotheses grouped under the relative ability to compete. Neither the change in segregation or the level of initial segregation registered anywhere close to being significant. The initial level of education in the Black community and the change in the education level were far below customary significance levels. The firm size variable and overall market size variables also failed to register close to customary levels of significance. The only variable in this group that registered significance was Black concentration changes. Evidently, SMSA's which had increases in the proportion of the population which was Black experienced slower growth in the receipts of Black firms. To the

extent that this measure captures discrimination, it supports the hypothesis concerning the importance of discrimination. However, we would caution against such an interpretation. Inspection of the correlation matrix suggests that this variable may well be capturing the declining SMSA's of the Northeast and the North Central.

The results clearly indicate that the level of SBA loan activity was an important positive contributor to growth in receipts between 1972 and 1977. The change in SBA loan activity also turned out to be one of the more significant variables. Moreover, the impact of the change in SBA activity on growth of receipts did not differ significantly by regions.

Growth in Number of Firms

The results of our estimate of the model to explain growth in the number of firms are displayed in Regression Table 2. This equation was the most successful of the four equations. It was both the most significant equation and the equation which explained the most variance.

The results for the market demand variables differed from the results for these variables in the receipt equation. In general, the business cycle did not appear to be important.

The results suggest that being in a growth area is important for growth in the number of firms. Moreover, growth in the size of the Black market also appears to have a strong impact on Black firm growth. Surprisingly, however, the initial level

West especially in the North Central and Northeast.

The availability of resources also proved important in the model of firm growth. In particular, the most significant factor in the equation predicting expansions in the number of firms was growth in the pool of professional and managerial manpower. Moreover, the initial level of professional and managerial manpower was the second most important variable. The related variable, the initial level of Black education also was highly significant.

As a group, the capital availability variables were not as important in the equations explaining growth in the number of firms as they had been in the receipt equation. The initial level of SBA loans, the initial level of Black bank loans, and the initial level of Black family income all failed to exert a significant positive impact on firm growth rates. However, changes in SBA loan activity were positive and significant outside of the South. SBA loans had an essentially zero impact in the South.

The ability to compete variables continued to be fairly unimportant as a group. Neither the change in the segregation or the initial level of segregation registered significance at customary levels. The concentration of the Black population in the SMSA at the start of the period and the change in Black concentration were also generally of low statistical significance. None of the scale or market size variables reached standard significance levels. The only variable in this group that registered significance was the initial level of Black education.

related to growth in the numbers of Black firms at least in the non-South.

Growth in Number of Firms with Paid Employees

The results for the model which we estimated to explain growth in the number of firms with paid employees are shown in Regression Table 3. This equation was also relatively successful explaining a fair amount of the variance and also having high statistical significance. However, it was clearly somewhat less robust than the all firm equation.

Most of the local economic condition variables failed to reach customary levels of statistical significance. The only local economic condition variable that registered significance was the initial level of Black family income. However, its impacts differed by region. It was strongly negative in the North Central less negative in the South and Northeast, and positive but insignificant in the West. These results appear consistent with the earlier conjecture that decline in areas with initial affluence impacted firm growth during this period.

In this case, as in the other two equations, the change in the professional and managerial pool is significant and positive. We also find that the change in the level of Black education is positive and mildly significant. However, although the initial level of professionals and managers and the level of education in the SMSA both have positive coefficients, neither variable attains customary levels of significance.

The initial levels of SBA and Black bank loans were both insignificant.

changes in SBA loans were negatively related to the growth of firms with paid employees in the non-Western region. Apparently, SBA lending activity was not helpful in creating firms with paid employees.

The variables included in the third group again performed poorly. The initial level of segregation the change in segregation the initial level and change in Black concentration the initial level of firm scale and the market size all failed to achieve usual levels of significance.

Changes in SBA loan activity appears to be negatively related to the variation in growth of firms with paid employees in our sample in all regions except the West where it is positive but not significant. However, this coefficient was not significant in the South and only moderately significant in the Northeast.

Growth in Paid Employment

In general, the use of the model to explain growth in paid employment was the most unsuccessful of the four equations. This equation explained the least variance. However, the F statistic was only 1.73, which was significant only at the five percent level.

Only three of the variables were significant in this equation change in the level of education was positive and significant. SBA in the South was significant and negative and not significantly different from zero elsewhere. The only other variable that achieved customary levels of significance was the dummy for SMSA's experiencing increases in average receipts per firm greater than \$16 thousand.

employment growth.

Quantitative Impacts

The quantitative impacts of various factors implied by our estimates are presented in the last section of the findings chapter. The following table provides an example illustrating the impact that would be observed in a hypothetical SMSA that had a Black population of 100,000. These quantitative impacts are for illustrative purposes and should be taken with appropriate caution. The standard errors reported in the text can be used to place ranges around the predicted impacts.

CHAPTER 5 - CONCLUSIONS AND POLICY IMPLICATIONS

In this report, we have presented the results of our study of the variation in the growth rates of the Black owned business sectors in the 156 SMSA's with more than 100 businesses between 1972 and 1977. The wide range of variation in the growth experiences of these SMSAs suggests that the potential growth of the minority business sector may be greater than has been supposed by some previous studies.

Market demand and resource availability are the two most important general factors influencing the rate of growth of Black owned businesses. Greater levels of market demand exert a significant influence on both growth in numbers of firms and growth in receipts. General economic decline in Black consumer markets in the SMSAs of the North Central and Northeast had a significantly negative impact on the growth rate of Black businesses. In the South there is a hint that economic

ESTIMATED IMPACTS OF SIGNIFICANT CHANGES IN EXPLANATORY FACTORS ON GROWTH OF BLACK
BUSINESS SECTOR IN AN SMSA WITH A BLACK POPULATION OF 100,000

Variable	Impact on Growth in Receipts	Impact on Growth in No. of Firms	Impact on Growth in No. of Firms With Paid Employees	Impact on Growth in Emp
Local rate	+\$1,835,000			
per capita		+ 87.0		
Black Family	+88,260,000 West +\$4,740,000 Northeast +\$4,300,000 North Central +\$5,330,000 South	- 5.6 in South - 12.5 in North Central - 19.3 in Northeast	- 7.85 in Northeast - 3.02 in North Central - 3.27 in South	
size of on		+ 5.8		
00 Black & Managers	+ \$880,400	+ 14.6	+ 22.0	
Professionals 1972	+ \$657,200	+ 12.6		
in Median ition			+ 20.5	+ 55.7
Average Level in 1972		+ 63.5		
ase in SBA	+\$476,000	- .68 in South + 2.9 in Northeast + 2.5 in North Central + 5.9 in West	- 1.2 in Northeast - 1.4 in North Central	
r Level of 972	+\$335,000			- 41.2 Sou
ase in Black			+ 3.4	
r Level of Black 1972	+\$72,000			

The availability of financial capital also appears to be a significant factor. For receipt growth the level of financial capital provided by both SBA and Black banks appears to be a strongly significant factor. The change in SBA capital also was a positive factor in increasing receipt growth and growth in numbers of firms outside of the South. There were significant shifts in SBA funding between 1972 and 1977 which did not have a beneficial impact on growth in the number of Black owned firms.

The level and change in the availability of professional and managerial manpower was a surprisingly important factor in the three basic equations. This variable may also be a proxy for the degree of discrimination as well as high level manpower availability.

While resource availability and market demand appeared to be significant factors, the measures for the ability to compete were generally of little importance.

Our analysis suggests rather strongly that growth in receipts, firms, and employment are somewhat different processes. Each measure of growth appears to have a quantitatively and qualitatively different association with the various explanatory factors.

The only explicit policy variable included in the analysis was the SBA variable. As we have seen the results suggests that the variation in SBA loan levels

straightforward. It is evident that policies which expand market opportunities for Black owned businesses will generally increase the rate of growth. However, the impact of these policies will not be great unless there is specific improvement in the Black community. Policies may be required to enable Black businesses to be more effective at serving the more affluent segments of the Black population or the more affluent market in general.

Policies which increase the availability of capital generally are beneficial to Black business growth. However, the results also strongly suggest that different types of financing will have differential impacts. Moreover, there is a strong implication that making capital specifically available to the Black business sector is important. The results also suggest that expanding the financial resources of Black banks and perhaps other institutions which have a higher than average propensity to service the Black owned business sector could be important.

Contrary to the general prediction of other writers, expansion of high level opportunities in mainstream business firms do not appear to reduce the rate of firm formation. On the contrary, expansion of the pool of manpower appears to be complimentary rather than competitive with the expansion of Black business ownership. Thus advocates of Black business expansion should encourage policies which lead to the expansion of opportunities for high level employment in mainstream private enterprises.

Our results imply that segregation of Black housing and the concentration of Black population in general do not have any significant impact on Black business

of existing Black firms apparently have little overall impact and need not be taken into account in policies concerned with Black business development.

The results suggest that market processes will generally result in widely varying performances across the various SMSA's. It is therefore apparent that interventionist strategies are still required.

Finally, our study suggest that additional research with more fully specified and perhaps structural models would be helpful in generating a better understanding of the minority business growth process.

Expanding Black business ownership has been an item on the nation's social agenda for more than a decade. The principle motivation for the interest in this policy has been provided by the general awareness of the present low rate of minority participation in the ownership of American business. While the data on Black businesses somewhat overstates the disadvantages of minorities in general, they are worth presenting because Blacks are the largest and most disadvantaged minority and because the qualitative characteristics of business development for other minorities are similar. According to Commerce Department and Internal Revenue Service data, there was a total of about 11 million businesses in the United States in 1969 and approximately 163 thousand of these businesses were owned by Blacks. By 1977, the total number of businesses in the United States had increased to 13.5 million and the 1977 survey indicated that the number of businesses owned by Blacks had increased to 231 thousand. The proportion of American businesses owned by Blacks increased moderately from 1.5 percent in 1969 to 1.7 percent in 1977. To place these estimates in perspective we note that the proportion of businesses owned by Blacks was about seven times smaller than the proportion of Blacks in the national population in both years. Moreover, even the small increases observed in the measured statistics probably overstates the relative size of the improvement between 1969 and 1977 since industry coverage was expanded in 1977 to include certain selective services that had been excluded in 1969.

The low rate of Black participation in the ownership of United States business is even more vividly revealed by the discrepancy between the total receipts of

black firms and industries. In 1977, Black firms had gross receipts of about 1.9 billion dollars, while the gross receipts of all firms totaled 1.9 trillion dollars. By 1977, the receipts of Black firms had increased to 8.6 billion dollars and we estimate that the receipts of all firms were about 4.4 trillion dollars. The proportion of total receipts received by Black firms was only about two-tenths of a percent in both years. In fact, there was a slight decline in the share of receipts going to Black owned businesses between 1969 and 1977. This is despite the fact that the 1977 figures are based on expanded Black firm coverage. The share of receipts received by Black owned businesses was about 50 times smaller than the proportion of Blacks in the population in both years.

Moreover, this same evidence suggests that Black businesses are disproportionately concentrated in a limited number of industries. For example, in both 1972 and 1977 about 75 percent of Black firms were concentrated in retail trade, services, and transportation.

Another perspective on the place of Black owned businesses in the American economy can be gained from comparing the largest Black owned businesses to the largest American businesses. Black Enterprise magazine publishes statistics on the largest Black owned firms and Fortune magazine publishes statistics on the largest American firms. The largest Black owned firm in terms of sales has never qualified for Fortune's list of the top 100 American industrial firms. In 1979, for example, the 1000th largest American industrial corporation had sales that were approximately twice that of the top Black corporation. The sales of all 100 Black owned firms on the Black Enterprise list combined rank below the sales of the 250th largest firm on the Fortune list in each year from 1972 through 1979. The

companies would rank around No. 45 on the list of top insurance companies.

Black owned firms employed approximately 315 thousand individuals in 1969, if one counts one owner for each firm. The number of paid employees is about half the total number of employees. By 1977, the total number of employees in Black owned firms had increased to 395 thousand. However, again these figures include the expanded industry coverage. The total number of employed persons in the U.S. was about 78 million in 1969, and 91 million in 1977, while the total number of employed Blacks was about 8.4 million in 1969, and 9.8 million in 1977. Thus, employment in Black owned firms was equal to about .4 percent of total U.S. employment in each year and about four percent of total Black employment in each year. The published statistics indicate slight increases in both proportions between 1969 and 1977. However, if one adjusted for the greater industry coverage the proportion probably would not have increased at all.

The above discussion makes it clear that existing Black owned businesses are few in number, relatively small, and disproportionately found in a few industries. The strikingly low participation rates of Blacks as owners of businesses is one of the most glaring inequalities remaining in our society. This limited participation in the ownership of American business is of concern because it indicates a limited opportunity for Blacks to exercise the power and influence that is associated with business ownership and thus, precludes their participation as full partners in the American dream. The limited business ownership is also probably related to the high rates of poverty, unemployment and other economic disadvantages faced by Black populations in communities throughout the country.

Since the mid 1960s, Federal policymakers have been engaged in an effort to develop strategies that would improve the rate and character of minority participation in the ownership of American businesses. A variety of policies have been developed including: financial support (through grants, loan guarantees, and direct loan programs), technical support of various types to the businessman, and marketing support (through set-aside programs). Despite a decade of increased federal government efforts to expand minority business ownership, the aggregate data suggest that there has been little major progress to date.

However, despite the modest success from federal government efforts to date, it is likely that business development strategies will have to play a larger role in future efforts to improve the position of minorities in the United States. First, during the past two decades, substantially larger sums were expended on other strategies to improve the economic position of minorities that also produced limited results and increased minority dependency on government programs. Second, the mood in public policy has shifted and now places increased emphasis on private sector solutions. However, if a new business development strategy is to be successfully developed and accepted by the public, policymakers will require much better information than they currently have concerning the quantitative aspects of various causes, solutions, and impacts.

Previous research on this topic has raised a number of hypotheses about the potential for expanding the Black owned business sector and the factors which determine the rate of growth of business ownership. However, because of data and methodological limitations, these studies have not provided convincing empirical

data sets which have had individual firms as the unit of observation. They were generally single point-in-time studies, and contained limited variation in macro conditions. Thus, the ability to investigate the impact of changes over time both in the business sector itself and in the surrounding community economic conditions has been largely absent even in the better studies on Black and minority business development. The worst of these studies are simply speculative containing little or no empirical evidence to test the link between the postulated causal factors and the overall performance of the Black business sector. The majority of the literature to date has been replete with the latter type of study. Thus, many of the hypotheses raised in the speculative and theoretical analyses have not been well tested.

This research project was undertaken to increase understanding of the determinants of the rate of growth of the minority business sector. This study focused specifically on the Black business sector because data limitations prevented a separate analysis of the other minority groups. It is our conviction that differences in the circumstances and situations of the various minority groups make group-specific analyses mandatory. However, we expect that the findings of this study ought to have some utility for understanding the growth patterns and prospects for other minority groups as well.

This study represents the first attempt to do a rigorous empirical analysis of the historical growth experiences of Black owned business sectors in SMSA's with

This study exploits the longitudinal and cross-sectional characteristics of the 1972 and 1977 Survey of Black Business Enterprise. This data set contains information on the performance of the Black business sector by SMSA for the U.S. as a whole. The analyses included data for each of the 155 SMSA's containing 100 or more Black firms in both 1972 and 1977. Thus the unit of observation for this study is the entire business sector rather than the individual business firm. The data base utilized for our dependent variables is not a subset or random sample of Black businesses; it is a complete count of Black businesses across the country. The survey included 187,602 Black firms in 1972 and 231,203 Black firms in 1977. Moreover, since the data is available at two separate points in time, this allows the study to be longitudinal and actually deal with the historical growth experience between 1972 and 1977.

This study takes a decidedly macro approach and concentrates on determining the impact of a variety of macro factors on the overall rate of growth of Black business ownership. We have specifically investigated the determinants of the growth rate for the entire Black business sector of each SMSA containing 100 or more Black businesses. This focus must be contrasted to the focus of more micro oriented studies which seek to identify the determinants of the rate of growth of individual business firms. Inferences from such micro studies concerning the overall rate of growth of Black owned businesses are indirect and risk committing the fallacy of composition. In contrast, inferences drawn from studies such as ours can provide more direct evidence concerning the factors that promote or impede overall development of the Black business sector.

1. How did growth patterns vary across the several SMSA's between 1972 and 1977?
2. What factors if any, explain this variation in performance of the various Black Business sector?
3. What is the relative quantitative importance of each of the explanatory factors?
4. What do the findings suggest about the prospects for expanding Black business ownership?
5. What are the policy implications of the analysis?

The answers derived to these questions will enable us to determine the relative importance and impact of various factors and to draw inferences about the possibilities for expanding the rate of growth of Black owned businesses. This information should be useful for policymakers and others concerned with developing appropriate policies to improve the relative position of Black businesses.

While our study should provide more rigorous and complete evidence on the various hypotheses raised in the literature concerning the factors which influence the overall rate of growth of the Black business sectors, the results should be viewed as preliminary because of the need to refine some measures of several factors, and to include other factors not taken into account. However, we think many of the findings are both interesting and useful.

extract the various factors which previous writers have hypothesized as being important determinants of the growth of Black businesses. The review also points out some of the limitations of previous work. Chapter III presents the methodology used in the empirical work reported on in this study. The chapter discusses the basic model, definition of variables, and principal hypotheses. Chapter IV presents our major findings. Descriptive findings are presented first. This is followed by a discussion of the regression results. The first part of this latter discussion focuses on the results of the hypotheses test. The second part uses the estimated equations to discuss the quantitative impacts of the significant factors. The final chapter presents some brief conclusions and policy implications.

LITERATURE REVIEW

The existing literature on Black business ownership has been principally concerned with explaining the relatively underdeveloped character of the Black business sector. Most studies begin with an acknowledgement of the well known facts that the typical Black business is small, is in the retail trade and personal services sector, and that the business sector as a whole provides relatively little employment and income for the Black population. In addition to the task of describing the characteristics of Black owned businesses, the literature has undertaken two other tasks. First, most studies attempt to explain the historical record of performance of Black businesses. These studies suggest a variety of explanations for this historical record and for why Black owned businesses are marginal relative to the business community as a whole. For the most part these explanations have been ad-hoc, theoretical, or speculative. In some instances, however, there has been an attempt to do empirical tests to verify the importance of some of the theoretical factors. For the most part these tests have been conducted on firm-specific data and therefore are more germane to testing hypotheses about the determinants of variations in firm performance than hypotheses about overall minority business growth rates. Second, most recent studies have generally attempted to evaluate prospects for Black business development given the desegregation and business programs that have existed since the mid-1960s. The efforts to assess the prospects for Black business development have for the most part been based on drawing inference from the assessments of historical performance of either the Black business sectors as a whole or the individual Black owned firms. Inferences about future potential are generally

particular, there have been no previous rigorous empirical analyses which utilize the rate of growth as the dependent variable. Nonetheless, the factors identified in the existing literature as explanans for the relatively underdeveloped nature of Black business firms are suggestive of factors that should influence the rate of growth of the Black owned business sector. The purpose of this literature review is to extract these factors. Although the existing literature lacks a consistent conceptual framework, four factors have been consistently put forward in the literature as possible explanations for the limited development of Black business ownership: limited market demand, limited capital resources, limited efficiency (human capital, small scale), and racial exclusion (discrimination). Although various authors have placed heavier emphasis on different factors, most of the arguments incorporate more than one factor. Frequently, all of the causes are seen as interdependent.

Overall Impact of Lack of Markets or Declining Markets

The limited market size argument appears in the literature many times. General impacts of the lack of access to markets, due to various reasons, have been outlined in Bates and Bradford (1979), Brimmer (1969; 1971), Markwalder (1981), Wallich (1967), and Brimmer and Terrell (1971). In essence, this argument suggests that the Black owned business sector has little growth potential because it is restricted to serving the Black community. This restriction is seen as a result of segregation, discrimination and choice. In any case, it is argued that given the limited demand which results from the relatively limited incomes, high rates of unemployment, poverty, and cyclical instability characteristic of the Black community the growth potential of Black businesses are limited.

caused by the low income and high unemployment in Black communities severely restrict the size of Black businesses and business growth. They maintain that because of the limited markets provided by the Black community the opportunity cost of investing resources and personnel in Black businesses is too high when compared to outside investment possibilities. Brimmer and Terrell further argue that the limited market open to Black entrepreneurs does not provide sufficiently attractive enough opportunities for the best Black talent to choose entrepreneurship over wage and salary employment. In their view this generates a rational response in the form of fewer choices for a self-employed business career by educated and professional Blacks.

A link between business efficiency and the extent of the market was also proposed by Wallich (1967) in discussing whether Black businessmen should limit themselves to segregated markets or pursue business opportunities wherever they exist. He found that Black businessmen cannot count on White patronage, and as a result of the limit this places on their sales growth they find it harder to raise capital while their White counterparts find it easier to do so. Moreover, because of limited markets, Black businesses have a difficult time reaching a level of operations that would bring their costs down to competitive levels.

Brimmer (1966) argues that much of the success that Blacks have enjoyed in areas such as restaurants, hotels, insurance companies, and banks was possible because of the protection provided by segregation. These markets were in a sense reserved for Black entrepreneurs. However, as legal restraints against racial discrimination are removed, and as Black family income increases, he predicts that

desegregation increases, and Black per capita income increases and he found no evidence of significance to support this hypothesis.

The sensitivity of Black businesses to overall economic conditions has been discussed by Bradford and Bates (1979), Brimmer (1969), Markwalder (1981), and Brimmer and Terrell (1970), among others. The upshot of these discussions is that traditional Black businesses are disproportionately impacted by economic downturns. This follows since traditional businesses sell more heavily to lower income ghetto clientele who during downturns in the economy, are more adversely affected than other consumers. Thus, during such downturns, their low income customers lower their purchases from local restaurants, beauty parlors, laundry mats, and other local retail establishments to a greater extent than do the customers of other businesses. Bradford and Bates, however, argue that the disproportionate sensitivity of traditional Black businesses to the business cycle does not hold for emerging Black businesses in manufacturing, construction, and wholesale trade to the same extent as it does for traditional Black businesses.

This literature taken as a whole strongly suggests that the propensity of Black businesses to serve an almost exclusively Black clientele is a major cause of the low level and rate of growth of Black business ownership. However, little concrete evidence is offered to support this speculation. In fact, the evidence offered to support this conjecture could be used to support the opposite conclusion, namely the focus on serving the needs of the Black community is the major factor which facilitated the little business development we do observe. Moreover, the size of the Black community's market is many times larger than the size of the

Black businesses have been unable to capture a major share of the Black consumer dollar and have had even less success capturing the non-Black consumer dollar. This apparently results from other factors which limits the ability of Black businesses to effectively compete for the available markets.

This literature suggests, on the one hand, that a high degree of segregation in markets for business output should be a positive factor in the level of Black business ownership. However, the literature is not consistent on the impact of desegregation on Black business development. On the one hand, some authors suggest that desegregation should hurt Black businesses by removing a protective barrier against competition. On the other hand, some authors seem to imply that desegregation should help by opening up access to broader markets. The literature also seems to suggest that growth in the available Black consumer market should be an important determinant of the rate of growth of Black business ownership. However, there is also the argument that increased affluence will cause Black consumers to seek purchases in the White sector and might also induce more competition from the White business sector. In short, the predictions of this literature are ambiguous.

Impact of Capital Resource and Supply-Side Constraints

a. Overall Analyses

Another factor that has been traditionally recognized as a barrier to Black business ownership is a general limited access to capital. General discussions of the impact of limited access to capital markets have been presented by Bates and Bradford (1979), Bates (1973; 1978), Dominquez (1976), Osborne and Granfield

this factor plays a more significant role than limited market size. In fact, the literature as a whole suggests that the propensity of Black businesses to serve, limited mainly Black clientele, is most directly linked to the limited availability of capital.

The basic arguments are discussed most notably in Bates (1978), Bradford and Bates (1979), and Osborne and Granfield (1976). These studies suggest the view that Black businesses have been concentrated in the traditional industries, (restaurants, laundries, barber shops, and other predominantly small service and retail establishments serving the Black community) because these small scale businesses consistently require significantly less capital than businesses in construction, manufacturing and wholesale trade. The general conclusion is that Black businesses which have been found in the non-traditional areas generally have been under-capitalized relative to their real capital needs. The restricted access to capital has limited Black entrepreneurs to operating small scale enterprises in less promising growth areas.

Researchers have found, moreover, that the level of capitalization is significantly correlated with business success for individual Black firms. Osborne and Granfield point out that after controlling for product line, non-failing emerging Black firms had a capitalization of \$171,000 which was \$50,000 more than the average emerging Black firm and \$90,000 more than emerging Black firms which failed. Bates and Bradford show the emerging Black firms' profits would increase

conclude that because of their limited access to capital, Blacks have historically had to concentrate in circumscribed, traditional fields precisely because they be started and maintained with little capital. The inference to be drawn is that skewed distribution of types of businesses in Black communities and their limited size and rate of growth are the result of the limited availability of outside capital and limited retained earnings of small ghetto enterprises.

Bates, (1978) in an analysis which compares SBA financed firms to firms in the National Business League Survey, Bates finds that if adequately capitalized, emerging Black businesses in the areas of transportation, construction, manufacturing and wholesaling offer an economic potential far greater than implied by the Brimmer and Terrell assessment. Bates concluded that increasing the supply of capital to the Black business community can be socially productive. In his view the main bottleneck to Black business development has been the limited amounts of capital market access available to Black firms in non-traditional areas.

Although the literature in general does not provide any direct empirical evidence of the independent role of limited capital availability, this literature does suggest that limited capital is a major constraint. This suggests that areas with greater access to capital should experience higher rates of growth. However, while the literature does establish the limited capital position of Black entrepreneurs it does not fully establish whether this is a cause or an effect of limited business development.

b. Small Business Administration Assistance

Administration. The impact of the Small Business Administration in filling the void of capital funds to Black businesses has been discussed in Doctors and Lockwood (1971), Bates (1971), Bates and Bradford (1979), Doctors and Wokutch (1982) and Yancy (1974). The discussion of the importance of capital might lead one to expect that the provision of loan capital by the SBA could lead to higher rates of growth of minority businesses. Most of the literature on the SBA, however, focuses on studying the patterns of SBA lending and the performance of assisted firms. There were no studies that analyzed the impact of SBA loan programs on the overall rate of growth of Black businesses.

The earliest research in this area examined the loan repayment performance of assisted businesses and concluded that the debt retirement record of Black client firms was poor. Doctors and Lockwood (1971) found that a higher percentage of SBA liquidations and disposals (L & D), and charge-offs occurred in Black businesses having zero employees. While 24 percent of randomly selected minority firms had zero employees, 43 percent of the charge-off business failures receiving SBA money had zero employees. Overall, between 1968 and 1971, Black businesses accounted for 82 percent of the charge-offs and 85 percent of the liquidations and disposals of minority businesses, while accounting for 64 percent of the total loans made to minority businesses. In 1971 alone, Black businesses comprised 22.4 percent of all SBA loans but accounted for 50 percent of all charge-offs and liquidations. Bates (1971) similarly found that almost 50 percent of the Black firms that had received SBA guaranteed loans in New York and Boston were delinquent in their loan payments with 34 percent of them in liquidation. These findings indicated to Doctors and Lockwood that smaller enterprises are the riskier

Opportunity Loan (EOL) Program in 1964 to help impoverished businessmen, this program was not designed to foster the growth and development of the overall minority-owned business community. Seventy percent of all loans to minorities came from EOL funds, but such loans were found to be greatly inferior to other SBA loan programs in its overall impact on the growth of minority businesses for two reasons: first, because EOL default rates were found to be significantly higher than 7A and 8A loans to minority businesses; second, because the EOL program actually perpetuated rather than alleviated poverty among low-income disadvantaged entrepreneurs since they had to continue to meet SBA loan payments after delinquency and liquidation. Delinquency and liquidation were more probable than not since EOL-aided businesses were found to have less than a 25 percent chance of success.

Investigating 106 Black firms in Atlanta from 1969 to 1971, Yancy (1974) concluded that, first, SBA lending policy in Atlanta had failed to create significant differences between SBA assisted Black businesses and unassisted Black businesses in terms of profit position, employment, and organizational form; second, that the number of Black firms created through SBA lending policy tends to be offset by failures and discontinuances. He concludes overall that federal programs have had no measurable impact on the status of Black business, and that improvements in Black businesses are positively correlated with improvements in the overall economic condition of the Black community. The SBA literature as a whole would tend to suggest that SBA lending programs are not effective in generating growth among the Black business sector. The primary reason for this is related to poor

of SBA loans on the overall rate of growth of the Black business sectors in the various SMSA's.

c. Black Commercial Banking

One final set of studies that are relevant to the capital availability factor is those studies which have explored the role of Black banks in financing minority business enterprises. The ability of Black commercial banks to finance the business development in communities they serve has been analyzed by Bates and Bradford (1979), Andrew Brimmer (1971; 1972), Ed Irons (1971), Abram Harris (1936), and John Boorman (1973; 1974). The major issue is whether or not the existence of Black banks generally imply greater access to capital for Black owned businesses.

Bates and Bradford (1979) found that Black banks have expanded in a steady two-dimensional growth pattern since 1960, whereby (i) existing institutions have grown steadily in terms of deposits and asset holdings, and (ii) the number of banks in existence has more than quadrupled. In 1974, 41 Black-owned banks were operating in the United States with 31 of these having been formed during the twelve years from 1962 to 1974. The mere existence of Black-owned banks, however, as Bates and Bradford point out, does not guarantee that they will serve as vehicles for financing economic development of their communities.

Andrew Brimmer, former member of the Federal Reserve Board of Governors, has in fact argued that Black banks as a group appear to possess very little potential as instruments of urban economic development (1971; 1972). Black banks in his opinion are poorly managed and suffer from high operating costs and

and (b) a local market environment too risky for small banks to lend money. Moreover, Brimmer finds that Black banks channel a significant share of their deposits into U.S. government securities, thereby possibly diverting resources from the Black community into financing the national debt.

Both Brimmer and Ed Irons (1971), former director of the National Bankers Association concluded that,

- (i) Lack of experienced management and banking expertise caused inefficient operations.
- (ii) High costs were related to both poor management and the fact that Black banks attract a large number of small, highly active deposit accounts.
- (iii) Large loan losses stemming from the characteristics of the ghetto market led to eroding profits.

Irons, however, in a criticism of Brimmer's work, points out that newer Black banks behave and perform differently from the older ones. When Irons compared Black banks with White banks in the same cities and same age categories, he found that Black banks fared favorably with White banks in terms of income, but unfavorably in terms of expenses.

In one of the earliest studies of Black banking, Abram Harris (1936) found Black banks to be overcapitalized relative to their deposits, and that these assets were nonliquid since they were overly concentrated in real estate and chattel property. They possessed a rigid financial structure since many of their large real estate loans were not liquidated at maturity, thereby being stuck with relatively large frozen assets.

more diverse and profitable for Black banks to become viable. Only then can the Black commercial infra-structure provide both the deposit activity and base for sound loans required to make Black banking significant in their communities.

John Boorman (1973; 1974), an economist with the Federal Deposit Insurance Corporation, confirms to an even greater extent Irons' assertion that trends in minority banking show improvement. In one of the most comprehensive series of studies of minority commercial banking to date, Boorman found that improvement in performance of Black banks was quite pronounced as they became more mature. Boorman used time series data from 1964 to 1972, whereas Brimmer and Irons only looked at Black banking performance cross-sectionally for one year. By using this better measure over time he was able to show that the operating efficiency of Black banks relative to majority banks compares unfavorably during the initial years of operation but quite favorably, thereafter; further their ability to generate gross income per dollar of assets is almost identical. The ratio of operating income to total assets for minority banks on the average rose from 2.72 percent in 1964 to 6.04 percent by 1972, whereas nonminority banks showed an increase from 3.14 to 5.93 percent over the same time period. Analysis of inefficiency, as measured by the ratio of operating expense to total assets, showed minority banks having increases in operating expense to total assets of 4.35 to 5.70 percent while nonminority banks showed increases from 3.52 to 5.20 percent. Consequently, minority banks do show greater difficulty in generating profits in their early years of operation, but they improve considerably over time. The problem of relative profit positions of minority banks stems not from the ratio of gross income to assets, which is typically as high as for majority banks, but from its variability

operating expenses are particularly high for minority banks during the first five years.

Bates and Bradford support the position that newer Black banks, once they reach maturity (i.e., after five years) are probably better able to finance business development. They cite the fact that newer Black banks are more active participants in FHA-HUD and VA mortgage programs, and also in SBA loan insurance programs than are older banks founded in the 1920s and 1930s. The protection against default risk offered by these programs enables newer banks to protect themselves at least partially against higher risks in their loan demand function. Bates and Bradford, thereby, expect this fact, coupled with older banks' reported lower loan loss reserves, to mean that newer Black banks would be more likely to service loan demands of Black households and businesses. They further point out, however, that it is not clearly understood to what degree Black banks actually serve as vehicles for financing economic development in their communities. If Black banks are conservative, highly risk-averse institutions that prefer government bonds and bills to holdings of business and household loans and mortgages, then they may in fact be incapable of helping to finance economic development in communities they serve. However, they note that despite government regulations constraining the way government deposits may be invested, loans as a percentage of assets have clearly risen as the number of newer banks have increased since 1970.

This literature, therefore, suggests that Black banks may be a factor in increasing the rate of growth of the Black business sector. However, the literature

Effect of Limited Business Human Capital on Market and Resource Access

Several authors have focused on the lack of business capital (formal training, business knowledge, experience, management skills) as the dominant explanation for the limited development of the Black owned business sector. According to these authors limited business capital leads Black businesses to low efficiency and low profits. This in turn reduces their ability to compete for proportionate market shares and for financial capital. The paucity of managerial skills, business knowledge and experience has been emphasized by Foley (1969), Coles (1969), Strang (1971), Brimmer (1966) and Case (1972).

According to Foley (1969), the primary reason for low credit ratings of Black businesses is the inadequate management ability of Black business borrowers. Racial factors in Foley's view are clearly less important than commercial banks' assessment of the borrower's management ability. Strang (1971) similarly concludes, after assessing survey information on 100 Black firms that the high incidence of failures of Black businesses is attributable to a lack of managerial ability, business education and experience. Like Foley, Strang claimed that Black enterprises had incompetent management of budgets, and poor marketing and sales programs. Though Brimmer emphasizes lack of markets as an explanation for the low rates of growth of Black businesses, he, too, suggests that Black entrepreneurs are not sufficiently prepared for the managerial and technical requisites of new fields or large scale enterprises to be competitive in newer expanding markets (1969). Flournoy Coles (1969) found that of the 564 Black enterprises he surveyed in seven urban areas in 1969, not one of the owners or managers had formal

authors compared Black entrepreneurs to a control group of white entrepreneurs.

In a study which included a central group of white firms, Scott, Furino, and Rodriguez (1981), conclude that poor performance of minority owned firms is due less to personal skill differences of minorities than to structural factors of smaller size, younger age, and poorer industry location as dictated by the available market. According to these researchers, knowing whether a firm is minority owned does not predict performance independent of structural factors. They find specifically that once asset size and age are controlled for, the mean rate of return on assets is no lower for minority than for majority firms, nor is the failure rate any higher. One limitation of their study which is often cited is that the Dun and Bradstreet data files used in their study tend to overrepresent the more mature credit-worthy firms. However, from an econometric standpoint, this is not too serious a problem since the same level of credit-worthiness is possessed by the control group of firms. Moreover, by controlling for structural factors, this analysis could more accurately reflect the relative performance of minority entrepreneurs given their limited opportunities. A critical issue, however, is whether structural factors like size of firm and poor industry designation are, in fact, exogenous factors. Brimmer (1969) for instance has argued that such factors are in essence endogenous since limited business capital, personal skills and purposeful pursuit of limited markets can themselves be causes of the skewed structural characteristics of minority firms.

In any case, these studies do suggest that the rate of growth of Black owned businesses should be related to the level of human capital available to the business

markets, limits access to financial capital, limits access to business knowledge and contacts, limits access to credit and risk capital, and in general, impedes the full participation of Black business owners in American commerce. These limits in turn reduces the ability of Black firms to operate efficiently and/or to earn a normal profit. It forces Black firms to remain small and operate in a limited segment of the market.

Racial discrimination has been highlighted as a primary cause of low minority business growth rates, low formation rates, and high business failures by Cross (1969; 1971), Lee (1973), Glover (1977), Lowery and Associates (1979), and Jackson (1972). The importance of racial discrimination in limiting market and resource access has been argued most forcefully by Cross (1971) in a little-known paper on Black capitalism. Cross asserts that the purposeful withholding of economic demand for the goods and services of Black producers by the predominant white society has in itself caused (1) Black capital to shrink, (2) Black male labor force participation to diminish, (3) Black people to tire of arming themselves with skills, and (4) Black manufacturers to suspend or lose interest in production. For Cross, the shortage of Black bankers, accountants, engineers, lawyers, and managers is simply a fulfillment of the prediction of classical economics--the direct result of sustained withdrawal of serious economic demand for Black people in these larger economic roles. Moreover, the discrimination of Whites against Blacks has, according to Cross, predictably curtailed the supply of entrepreneurs and producers because the economy never furnished adequate wants or demands for goods that

If conventional wisdom about Black people missing a tradition of entrepreneurship, ownership, and "need for achievement" holds even a grain of truth, it is a statement--not of an original condition--but of an assured economic result of the solid and sustained preference of white people not to trade or exchange commercial promises with Black people....I find it strange that this (increasing the visible supply of Black people who are trained entrepreneurs and professionals) should be the total strategy in a market economy where the best way to increase the supply of something you want has always been to make sure there was a very solid demand for it.

Lee (1973) in a thorough discussion of the history of Black business gives voluminous evidence to support the contention that Black businesses and professionals have always been successful in markets either left to them or in markets where they have been freely allowed to compete. Hunter and Sinkley (1980) contend that minority owned businesses have been socially constrained from access to conventional capital markets and therefore, have significantly higher levels of failure probability than majority firms. Cross (1969) also maintains that Black businesses are, in effect, isolated by a system of tariffs on retail sales, rents, and consumer and business credit, and are consequently viewed as not worthy of credit and risk capital.

The problem of discrimination faced by Blacks attempting to sell such products and services to the larger white community has been emphasized by Glover (1977), and Lowery and Associates (1979). Market entry is seen as a special problem for Blacks trying to move into non-traditional, emerging businesses as recommended by Bates and others. In their Procurement and Marketing Handbook (1979), the Minority Contractors Assistance Project states: "not one white contractor that we interviewed believed that a minority contractor could offer a competitive bid..." Glover submits it is difficult for minority contractors to market their services for jobs which have been considered "white jobs."

Nonetheless, this literature does suggest that Black business sectors ought to perform better in SMSA's generally characterized by less discrimination.

An Overall Analysis of Supply and Demand Factors

Ong (1981) investigated the issue of demand versus supply constraints on Black business development and found that supply bottlenecks or resource constraints predominate. He looks at 30 SMSA's and measures the impact of supply and demand side factors on Black sales per capita. Demand is defined as a function of Black per capita income, a desegregation index, and the Black/White earnings ratio as a proxy for racism. He hypothesizes that each of these factors should have negative impacts on sales since their increases measure, in his estimation, the decline in segregation and discrimination, and increased access to majority business' products. Supply variables included the growth of Black population and the change in the percentage of the Black to total population. Included as well was the ratio of firms with paid employees to firms with no employees. The first two population variables were hypothesized to have negative impacts on per capita sales since Black communities and businesses require significant amount of lead time to accumulate the savings and credit rating needed to open businesses, and since financial institutions tend to view areas with high concentrations of Blacks as too risky. The third factor is hypothesized to have a positive sales impact since larger firms with paid employees are better able to secure loans and credit. All supply-side variables were significant and all demand-side variables were insignificant, thereby supporting the view that Black businesses are not constrained by demand-side factors, but rather by supply-side factors.

Limitations of Previous Work and Contrasts With Present Study

Our discussion of the various papers comprising the literature has emphasized their conclusions and their respective areas of coverage of minority business problems. We now turn to a brief discussion of some of the limitations of the literature and how the previous work differs from the present study.

A review of the literature suggests that, on the whole, previous studies are circumscribed by some combination of five limitations. These limitations include: (1) overdependence on voluntary, self-reported questionnaire data from small poorly selected samples; (2) nonrecognition of response and selection bias in the type and number of firms analyzed; (3) restriction to single point-in-time data; (4) the exclusive use of internal factors of the firm with no allowance for larger economic forces; and (5) little or no explicit methodology to investigate factors of change and growth in minority business enterprise in its entirety.

Many of these problems can be traced back to the paucity of adequate data concerning minority business enterprise since serious, concerted data gathering efforts in this area have been undertaken in only the last ten years or so. The shortcomings of the studies by Brimmer and Terrell (1971), and Coles (1969), for instance, reflect this in large part. Both these studies, which for several years were considered two of the seminal works in this area, used the 1969 National Business League survey of 564 Black business in seven cities. The pattern of data collection in this survey was poor with only 50 of the 112 business owners responding in Jackson, Mississippi, and 18 of 80 in Durham, North Carolina. Similar

all nonrespondents had zero sales and zero profits. In some cases, they report firms with zero sales and positive profits. Moreover, when they regress profits per worker on total receipts, age of owner, and membership in professional or business organization, there is a large part of the variance left unexplained with an $R^2 = .09$. Bates (1973) on recalculating this same regression using only reported, complete information showed that absolutely no significant or interesting results emerge, and that only 2 percent of the variance in profits per worker could be explained.

Cases' study (1972) consists of a series of discussions and interviews with local Black entrepreneurs in Los Angeles. He assembles and interprets their opinions and impressions on minority business problems. Though useful, it certainly cannot be classified as rigorous empirical research.

Yancy's work (1974) which seeks to assess the overall impact of federal assistance programs on Black business development looks at only one city, Atlanta, using a field study questionnaire covering a 3 month period in 1972. As in the case of the National Business League survey, the response rate was very low. Nearly 70 percent of the firms contacted did not respond (i.e., 230 out of 336 firms). Again, response bias is very possible here too.

Strang's work (1971) investigates a small sample of 100 firms from across the country that were in some way assisted by various private and public organizations. These firms appear to be ones that were especially weak in management skills and marketing techniques. The sample is consequently skewed toward the poorly

area relied on survey responses from very limited samples of firms characterized by low response rates and biased sample selection.

Bates' work (1973) was the first study which did not rely on data derived strictly from voluntary responses to survey questions by a small number of firms. His research focused on SBA assisted firms and utilized verifiable balance sheet information on assets, liabilities, net worth and liquidity. Though this constituted a distinct improvement in methodology and data, the sample studied still was not a representative cross-section of all Black firms. The same criticism can also be leveled at the work of Bates and Bradford (1979) which represents a significant improvement over previous work on minority business development and financing.

Though Osborne and Granfield (1976) possess a degree of econometric sophistication often lacking in many of the earlier papers in the area, their overall methodological approach has limited generalizability. They investigate the profitability of only 45 Black owned businesses which were assisted by a single California MESBIC. Moreover, they define firm viability as earned profits in one year in excess of MESBIC subsidy capital the preceding year. As Bates (1978) correctly points out, a firm earning as much as a 40 percent rate of return on subsidy capital, which by all normal standards would be deemed as quite successful, simply does not qualify as viable under their definition. Also, as is true with virtually all the studies in the field, no macroeconomic factors are considered.

An additional micro-oriented study, discussed previously, which is quite noteworthy is Scott, Furino, and Rodriquez (1981). This study has the advantage

These firms are on the average more successful and more credit-worthy than minority firms in general. Thus, this selection of firms is skewed toward the very best of minority businesses. It is interesting, and probably quite predictable, that their general assessment of minority business enterprises and the skills of minority entrepreneurs is quite different than that of Strang and Case, and others whose selection of firms is skewed toward inferior firms.

Two papers which do take a macro perspective are Ong (1981) and Markwalder (1981). Markwalder's paper is simply a literal descriptive analysis of receipts and number of firms with no specification of causal relationships. His discussion has been criticized elsewhere (Bates, 1983b) for drawing conclusions from a broad aggregation which assumes that all service and retail sector firms are similar when, in fact, they clearly are not. Janitorial and housework services are not in the same category as accounting, legal and medical services, for instance. Ong's study is the only one we know of that specifies a causal model using macro factors. It is a useful first step which seeks to separate demand and supply factors as a function of a few population and income measures. It does not, however, include any government financial assistance programs, bank loan statistics, professional or managerial data, education levels, experience or unemployment data. Thus, his supply and demand equations are somewhat less than convincing. It is a purely cross sectional study using 1972 Survey data which has not been corrected for errors. He limits the study to 30 SMSA's.

This present study in contrast to the existing literature will incorporate as

conditions, ability to expand capacity, ability to compete and government financial assistance policy. It will also be the first study to incorporate such a framework into a set of complete count data of 187,602 Black-owned firms in 1972 and 231,000 Black-owned firms in 1977 -- thereby avoiding the response and selectivity bias so prevalent in previous work.

Overview

In this study we analysed the inter-SMSA variation in the rate of expansion of Black business ownership between 1972 and 1977. Our approach to this task was straightforward. First, on the basis of the literature review and general theoretical considerations, a model and a series of hypotheses were formulated to explain the observed pattern of growth. Then empirical constructs were formulated to proxy or measure the factors identified in the model as determinants of the rate of growth. Measures of growth were then formulated and the two surveys of Black business were used to calculate growth rates for each of the SMSA's for which data were available in both 1972 and 1977. A data set was also assembled and used to measure each of the independent variables.

We then conducted the analyses. First, the pattern of variation in observed growth rates across SMSA's was described using descriptive statistics. Next, a regression model was formulated and estimated for each of the growth measures. The estimated equations were then used to test the various hypotheses and to estimate the quantitative significance of each factor. Finally, the implications of the analysis for policy were derived and discussed.

Model and Hypotheses

The general model utilized in this study is a somewhat ad-hoc formulation based on the Black business literature and general theoretical considerations. In this formulation growth of Black business ownership (G) is postulated to be determined by four broad classes of factors: Market Demand (M), Availability of Resources (K), Competitiveness of Black businesses (C), and Government Policy

A Discussion of each of the independent variables and related hypotheses follows:

1. Market Demand.

In theory growth in demand is one of the more important determinants of the rate of growth of business in general. The Black owned business sector constitutes merely one segment of the general American business structure. In a general sense, all business enterprises compete for the same market demand. This implies that an overall constraint on the rate of expansion of Black business ownership is the rate of growth of opportunities for business expansion in general. If there were essentially no racial factors, the demand for the products of Black owned businesses would be determined by the demand for business products in general. Differences in market demand for businesses in different SMSA's would emerge from difference in the general conditions of the various local economies.

Conditions in the local economy are thus incorporated as major determinants of the overall level of demand for the products of Black owned businesses. It was postulated that the demand for products of Black owned businesses would be higher in a healthy local economy. Therefore, it was hypothesized that a positive relationship should exist between indicators of a healthy local economy and the rate of growth of Black businesses.

Three variables were used to proxy the general local economic conditions. First, the unemployment rate (UNEM) was used to measure the state of the business cycle. Increases in the unemployment rate are expected to be negatively

negative. Second, the total per capita income of the metropolitan area (SUIN) was used to measure the general level of potential demand. The sign of this variable is expected to be positive. Third, a regional dummy (REGION) was included to capture variations in regional economies not picked up by the other variables. Regions experiencing faster growth in general are expected to also have faster growth of Black owned businesses.

On the other hand, much of the literature argues that Black owned businesses serve primarily a Black clientele. If this is true, then the demand for Black businesses would be more closely related to the economic health of the local Black community than to the general local economy. This implies that the demand factor should include variables which measure the specific economic condition of the local Black population. This reasoning supports an hypothesis that the economic health of the local Black community is an important determinant of inter-SMSA variation in the rate of growth of Black businesses. This hypothesis will gain support if the general market demand variables are found to be insignificant or of the wrong signs and if any variables which capture the economic position of the local Black community are significant and have the right signs. The variables included in the models that could measure the health of the local Black economy are median Black family income (BFIN) and Growth in local Black population (PERBLK). Positive and significant coefficients for these two variables would support the hypothesis.

Availability of Resources

The availability of resources which determines the ability to expand and sit

availability of sufficient resources to expand supply capacity. The most significant resource constraints identified in the literature are the availability of capital and the availability of potential entrepreneurs and managers. We hypothesized a positive relationship between the availability of capital and entrepreneurial/managerial talent and the rate of expansion of Black business ownership.

The capital available to Black businesses again may be determined by the general availability of capital in the local economy or by the specific availability of capital in the Black community. Unfortunately, we had no good measures of the general availability of savings or capital in a local area. Our models incorporated several variables that could proxy the availability of funds to Blacks in particular. Specifically, the level of loans made by Black Banks (BBLN), the level of Black median family income (BFIN), and the level of SBA loans made to Blacks are included in the analysis. Positive and significant coefficients on any of these variables will confirm the specific importance of the capital constraint and will be consistent with the hypothesis that Black business growth is related to resources specifically available to the Black community.

The availability of a pool of entrepreneurial and managerial talent was proxied by the number of Black professionals and managers (PRMN) working in private industry as measured by EEOC data. The assumption here is that greater levels of Black professionals and managers reported by majority firms in the EEOC data is correlated with larger total numbers of Black professionals and managers in the SMSA. The educational level of the Black population (BLKED), might also be

Black firms to compete identified in the literature are the degree of discrimination, market segregation, and the relative efficiency of Black enterprises. We hypothesized that the degree of segregation of the Black market and the relative efficiency of Black businesses would be positively related to the rate of growth of Black businesses while discrimination is hypothesized to have a negative impact on Black business growth.

The change in the concentration of Blacks in the SMSA (BLKCONDIF) was used to proxy the degree of discrimination. Studies in urban economics invariably find that when the White population leaves an area at greater rates than the Black population, financial resources needed for business growth and tax bases necessary to support government services leave with them. Increasing Black concentration reflecting this phenomena, therefore, lessens the ability to compete for the remaining inner city businesses. If our hypothesis is correct, we would expect growth in BLKCON to be negatively associated with growth measures.

The degree of segregation (SEG) was used to proxy the degree of isolation of the Black market. It differs from SMSA-wide Black concentration in that it measures the distribution of Black population concentration across census tracts in the SMSA. We hypothesize that greater segregation would imply greater business development to the extent that segregation measures isolation of the Black market. However, to the extent that the segregation index measures the degree of housing and economic discrimination, it would be negatively related to Black business growth. Thus its sign is ambivalent.

The relative efficiency of the human resources available to Black owned firms was proxied by the educational level of the Black population over 25 years of age (BLKED). Following human capital theory, this variable might be expected to measure the productivity of both the labor and the managerial/entrepreneurial resources available to these firms. In addition, the scale or average firm size (FSCALE) was also included as a measure of the efficiency of the typical Black firm on the grounds that larger firms are more efficient. Since many of our explanatory variables are in per capita terms, the size of the local Black population (SMSA SCALE) was included as a dummy variable to distinguish between small, medium and large potential markets. In this case we assume that firms can grow faster where there is a larger market. Positive and significant coefficients on each of these variables would support the maintained hypotheses.

4. Government Policy Variables

Government policy influences the rate of growth of Black owned businesses through their impact on the above three factors. Government policies which increase demand, increase resource availability, or improve the ability to compete are hypothesized to have a positive relationship to the rate of growth of the minority business sector. The only government policy variables directly measured in the current study were the volume of minority business loans made by Small Business Administration (SBA) and financial assistance of the Minority Business Development Agency (MBDA76). These variables are intended to measure the impact of government policies which increase minority access to capital. These variables are expected to be positively related to minority growth. No proxies

PRINCIPAL INDEPENDENT VARIABLES

(1) Local Economic Conditions

UNEM: Local SMSA unemployment rate. This variable was used to measure the cyclical condition of the area and to proxy the general level of economic activity in the area.

SUIN: Surrounding income differences, measures the change in the total consumer market within which Black firms operate. This variable is defined as the total income per capita of the SMSA.

PERBLK: The percent change in the total Black population is used to measure the change in the available market after controlling for changes in concentration. Greater available markets imply greater ability to compete.

REGION: Regional dummies to measure other differences in the local economy that differ by region. The West is the omitted region. This variable is also used as an interaction term to differentiate SBA resource impacts and Black median family income impacts between regional locations of SMSA's.

(2) Ability to Expand Capacity

BBLN: A measure of the amount of Black bank commercial loans per capita. This is intended to measure the relative importance of Black banks in metropolitan areas on Black business development.

BFIN: The Black median family income. This is intended to measure both the direct market power for Black goods and services and the pool of Black-owned savings. In the latter case, it can also be considered as a variable under ability to expand capacity. Black median family income is also interacted with the regional dummy which permits explicit examination of differential regional impacts.

FIRM SCALE: Changes in the scale or size of the average Black enterprise by SMSA are included to measure the impact of various firm sizes on the ability to expand per capita output and the number of firms with paid employees per capita. This is a dummy variable measuring five scale intervals (with negative to zero changes being the excluded dummy). Firm size is measured by receipts per firm.

(3) Relative Ability to Compete

BLKED: The average years of education completed by the Black population over 25 years of age for each SMSA. Data was taken from the 1970 and 1980 Censuses, which are the only sources for the data by SMSA, to proxy this

segregation across each SMSA. This variable has been used in previous work to make inferences regarding the concentration of Black purchasing power for Black businesses' products and services. This variable differs from the concentration of Black population across the metropolitan area (BLKCON) in that it indexes the distribution of Black population concentration.

BLKCON: This variable measures the percent Black to total population in the SMSA, and therefore, is a measure of Black concentration in the SMSA.

SMSA SCALE: A dummy variable which measures the size or scale of the local Black market. SMSA's with under 90,000 Black population are ranked small, SMSA's with Black population between 90,000 to 300,000 are ranked as medium and SMSA's of greater than 300,000 in Black population are ranked as large. The small SMSA category is the omitted dummy.

(4) Government Assistance Programs

SBA: Total SBA loan levels per capita of Black population across SMSA's covering EOL and 7A loans. Differences in SBA impact by West, Northeast, Northcentral (Midwest), and South are explicitly examined.

MBDA76: The level of MBDA lending and procurement assistance per capita in the intervening year of 1976.

in this study: the number of firms, the amount of receipts, and the number of employees. Because of disclosure problems and other difficulties which prevented the timely acquisition of complete and adequate corrected data for the number of employees by SMSA designation, most of the emphasis in our analysis was given to the first two measures. Each variable was expressed in per capita terms in order to adjust for differences in the sizes of places. This also minimized possible problems in heteroscedastic disturbances in error terms due to varying sizes among SMSA's.

Thus our study explored the determinants of the change in per capita receipts, number of firms per thousand persons, and numbers of paid employees per capita between 1972 and 1977. To calculate per capita variables, the changes in the dependent variables between 1972 and 1977 were divided by 1972 population. Each of these measures provides a slightly different indicator of the rate of growth. Ideally, one would hope that all three measures provided the same qualitative indication of growth and this was found to be generally true. However, there were some differences in the results for each indicator as well as in the degree to which our models accounted for the variation as measured by each indicator.

The analysis was focused primarily on the rate of growth for the Black business sector overall. However, an equation was estimated separately for growth in the number of firms with paid employees as well.

We, therefore, estimated growth equations (G_i , $i=1...4$) using the change in

BLACK POPULATION 72

$$G_2 = \frac{\text{FIRMS 77} - \text{FIRMS 72}}{\text{BLACK POPULATION 72}}$$

$$G_3 = \frac{\text{FIRMS WITH PAID EMPLOY 77} - \text{FIRMS WITH PAID EMPLOY 72}}{\text{BLACK POPULATION 72}}$$

$$G_4 = \frac{\text{PAID EMPLOYMENT 77} - \text{PAID EMPLOYMENT 72}}{\text{BLACK POPULATION 72}}$$

Basic Regression Model*

Theoretical considerations suggest that both the initial conditions in the SMSA and changes in those conditions should determine the rate of growth. The specification, therefore, includes both initial values and changes in the values for most of the independent variables. These considerations thus lead to the following general empirical model:

$$\begin{aligned} G_i &= B_0 + B_1 \text{ REGION} + B_2 \text{ PRMNDIF} + B_3 \text{ BBLNDIF} \\ (i = 1...4) &+ B_4 \text{ SBADIF} + B_5 \text{ SBADIF} * \text{ REGION} + B_6 \text{ UNEMDIF} \\ &+ B_7 \text{ BLKCONDIF} + B_8 \text{ SUINDIF} + B_9 \text{ SEGDIFF} \\ &+ B_{10} \text{ BFINDIF} + B_{11} \text{ BLKEDIF} + B_{12} \text{ MBDA76} \\ &+ B_{13} \text{ SMSA SCALE} + B_{14} \text{ FIRM SCALE} + B_{15} \text{ PERBLK} \\ &+ B_{16} \text{ PRMN72} + B_{17} \text{ BBLN72} + B_{18} \text{ SBA72} \\ &+ B_{19} \text{ BLKCON72} + B_{20} \text{ SURIN72} + B_{21} \text{ SEG72} \\ &+ B_{22} \text{ BFAMIN72} + B_{23} \text{ BFAMIN72} * \text{ REGION} \\ &+ B_{24} \text{ BLKED72} + E \end{aligned}$$

SOURCES OF DATA

The sources of data for our dependent variables (namely the number of firms, gross receipts, and paid employment of Black business enterprises in 1972 and 1977) were the 1972 and 1977 Survey of Minority-Owned Business Enterprises, Black (Bureau of the Census). We obtained from the Bureau of the Census through the Minority Business Development Agency special tabulations which corrected for data errors in the published 1972 survey. The accuracy of our dependent variables was therefore much improved. However, two problems may still remain. First, we lost some SMSA observations from our original 155 SMSA's because the method of collecting the data separated matched and unmatched firms resulting in some disclosure problems. In all, we lost 11 SMSA's through these disclosure problems. We do not feel this is a significant problem, however, since the profile of these 11 metropolitan areas closely matched the profile of the remaining SMSA's. Second, we are still uncertain how well the corrections were made to eliminate the problem of the incompatibility of the service industry coverage between 1972 and 1977. Finally, because of the difference in SMSA classification between the Minority Business Survey and the other standard data sources of the Census Bureau, some areas classified as SMSA's in the Minority Business Survey in 1972 were not classified as such in those sources for our independent, explanatory variables. This led to some missing observations for our independent variables. The net result of all these factors taken together led to our having 127 observations in the receipts equation, 139 observations in our number of firms equations, and 90 observations in our paid employment equation. Nonetheless, this data represents the best data available to date to measure business growth.

TABLE 2
DATA SOURCES

Dependent Variables:

- (1) Paid Employment in Black Business Enterprises, 1972 and 1977: Derived from special tabulations, U.S. Bureau of the Census, Employment of Matched and Unmatched Minority-Owned Business Records 1977/1972 by Standard Metropolitan Statistical Area.
- (2) Receipts of Black Business Enterprises, 1972 and 1977: Derived from special tabulations, U.S. Bureau of the Census, Receipts from Matched and Unmatched Minority-Owned Business Records 1977/1972 by Standard Metropolitan Statistical Area.
- (3) Number of Firms and Number of Firms with Paid Employees, 1972 and 1977: Compiled from data source given above, U.S. Bureau of the Census.

Explanatory Variables:

- (1) Black Professionals and Managers 1972, 1977: Compiled from 1972 and 1978 EEOC Report, Minorities and Women in Private Industry, Vols. 1 and 2 (U.S., Equal Employment Opportunity Commission, Washington, D.C.)
- (2) Black Bank Loans: Derived from 1971, 1972 and 1976, 1977 data compiled by the Federal Reserve Bank of Atlanta, and by the U.S. Federal Reserve Bank, Washington, D.C. from the Consolidated Report of Condition for A Bank and Its Domestic and Foreign Subsidiaries, various years.
- (3) Small Business Administration Assistance from EOL and 7A Loan Programs: Derived from compilation done by special computer runs across 3,000 counties nationwide from the years 1971, 1972, 1976 and 1977, U.S. Small Business Administration, Washington, D.C., Reports Management Division, Summary Listing of Approved Business Loans to Blacks in the Years 1971, 1972, 1976 and 1977.
- (4) Unemployment Rate by SMSA, 1977: State and Metropolitan Area Data Book, 1979 (Bureau of the Census).
- (5) Total Black Population by SMSA, 1972: Extrapolated from 1970 Current Population Reports, series P-25, Nos. 814-863 (U.S. Bureau of the Census).

Total Black Population by SMSA, 1977: Extrapolated from Census of Population, 1980, Standard Metropolitan Statistical Areas and Standard

by Race in U.S. Metropolitan Areas (Washington, D.C., Urban Institute, 1977).
Segregation Index, 1977: Schnare Index calculated at the Southern Center for Studies in Public Policy, Clark College, from the STF-1A Tape File on population counts by race for all census tracts from the U.S. 1980 Census. The counts were extracted from 34,000 census tracts by the Social and Behavioral Sciences Lab at the University of South Carolina.

- (8) Black Median Family Income, 1972: Extrapolated from the General Social and Economic Characteristics of Standard Metropolitan Statistical Areas, 1970 (U.S. Bureau of the Census).

Black Median Family Income, 1977: Extrapolated from the STF-3C Summary Tape on the 1980 Social, Economic and Housing Characteristics by Standard Metropolitan Statistical Areas by the University of Georgia, Office of Computing and Information Services.

- (9) Black Years of Education (Persons 25 years of age and over), 1972: General Social and Economic Characteristics of Standard Metropolitan Statistical Areas, 1970, Table 183 (U.S. Bureau of the Census).

Black Years of Education (Persons 25 years of age and over) 1977: Proxied by data from the STF-3C Summary Tape on the 1980 Social, Economic and Housing Characteristics by SMSA's (University of Georgia, Office of Computing and Information Services).

- (10) Minority Business Development Agency Loans and Procurement, 1976: Sum of monetary assistance provided by MBDA in 1976, taken from the MBDA Fiscal 76 Bar Tape File.

● Firms Per 1000 Black Population

Although the overall level of Black business ownership is limited, there is wide variation in the level of ownership among the 155 SMSA's examined. While the mean number of firms per thousand Black population in 1972 was 8.5, the range of firms per thousand population varied from a low of 4.2 to a high of 18.0. In 1977, the range of firms per 1000 population went from a low of 5.1 to a high of 30.0 with the mean number of firms per 1000 at 9.9. The distribution of SMSA's by number of firms per 1000 population for 1972 and 1977 is shown below.

<u>Firms/1000 persons, 1972</u>	<u>Numbers of SMSA's</u>	<u>Percent of SMSA's</u>
Less than 6	19	12.3
6 to 8	56	36.1
8 to 10	48	31.0
10 to 12	19	12.3
12 to 14	8	5.2
14 +	<u>5</u>	<u>3.2</u>
Total	155	100

<u>Firms/1000 persons, 1977</u>	<u>Number of SMSA's</u>	<u>Percent of SMSA's</u>
Less than 7	20	12.9
7 to 10	72	46.5
10 to 12	29	18.7
12 to 14	20	12.9
14 +	<u>14</u>	<u>9.0</u>

businesses per 1000 Black population, whereas by 1977 a little less than 60 percent of all SMSA's had 10 or fewer Black businesses.

A more important point for our purposes, however, is the fact that there was also wide variation in the rate of growth in number of firms among these SMSA's between 1972 and 1977. The table below indicates that 12.3 percent of the SMSA's had negative or zero growth in number of firms per 1000 population. In all, nearly 77 percent of the SMSA's had 2 or fewer net new firms formed per 1000 population, with 23.2 percent forming more than 2 new firms per 1000 population, and nearly 6 percent forming more than 4 new firms per 1000 population. The range of increase in the number of firms per 1000 varied from -3.0 to 12.

<u>Growth in Firms/1000 persons</u>	<u>Numbers of SMSA's</u>	<u>Percent of SMSA's</u>
Less than 0	19	12.3
0 to 1	55	35.5
1 to 2	45	29.0
2 to 3	21	13.5
3 to 4	6	3.9
4 +	<u>9</u>	<u>5.8</u>
Total	155	100.0

When firm growth was categorized by region, we found significant regional differences in growth. The Chi-Square statistic is 60.85, which shows a systematic

The West contained two-thirds of all the SMSA's having growth greater than 4.0 net new firms per 1000 despite the fact that only 13 percent of the SMSA's in our sample were located in the West. While containing nearly half of all the SMSA's in our sample, the South had no SMSA's with a firm growth of over 4.0 per 1000 population. The Midwest had 22 percent of the SMSA's in this highest firm growth category; while the Northeast had nearly 17 percent of all SMSA's and 11 percent of the SMSA's in the highest firm growth category.

At the other end of the distribution, only 5 percent of the SMSA's in the West had zero or negative firm change per capita compared to 15.4 percent of the SMSA's in the Northeast, 14.7 percent of the SMSA's in the Midwest and 12 percent of the SMSA's in the South. Moreover, only 10 percent of the SMSA's in the West had 1.0 or fewer net new firms formed per 1000 population compared to nearly 58 percent of the SMSA's in the Northeast, 59 percent in the Midwest, and nearly half of the SMSA's in the South. Thus the West is clearly the region in which the most significant net new firm formation occurred during the period of this study.

Table 3

GROWTH IN FIRMS PER 1000 BLACK POPULATION IN SMSA'S
BY REGION

	0 - 1	1 - 2	2 - 3	3 - 4	4 and Over	SMSA's as % of All
East (N = 26)						
Rate of SMSA's in Region	42.3	34.6	3.8	0.0	3.8	16.
Rate of all SMSA's in all Regions	20.0	20.0	4.8	0.0	11.1	16.
Central (N = 34)						
Rate of SMSA's in Region	44.1	14.7	11.8	8.8	5.9	21.
Rate of all SMSA's in all Regions	27.3	11.1	19.0	50.0	22.2	21.
(N = 75)						
Rate of SMSA's in Region	37.3	38.7	9.3	2.7	0.0	48.
Rate of all SMSA's in all Regions	50.9	64.4	33.3	33.3	0.0	48.
(N = 20)						
Rate of SMSA's in Region	5.0	10.0	45.0	5.0	30.0	12.
Rate of all SMSA's in all Regions	5.3	4.4	42.9	16.7	66.7	12.

$$\chi^2 = 60.85 \quad (15 d.f.)$$

\$93 to \$1775 in 1977. The mean amount of receipts or gross sales per capita was \$246 and \$344 in 1972 and 1977, respectively. More importantly, for the purposes of our study, there was also a wide range of growth rates in per capita receipts. The range of growth in per capita receipts between 1972 and 1977 was from -\$390 to \$858. The distribution of SMSA's by change in per capita sales shows that over 14 percent, or 20 out of the 139 SMSA's for which there were no missing cases, generated growth in receipts of over \$200 per Black person, and nearly 14 percent, or 19 out of 139, had zero or negative growth in receipts per capita. Over 70 percent of the metropolitan areas covered showed at least moderate change. In all, about 62 out of the 139 SMSA's, or nearly 45 percent of the total SMSA's, had increases in per capita receipts which equaled or exceeded the rate of inflation of 45 percent between 1972 and 1977.

<u>Growth in Sales/Capita</u>	<u>Number</u>	<u>Percent of SMSA's</u>	
(\$)		<u>Adjusted for</u> <u>Missing Cases</u>	<u>Relative to</u> <u>Total</u>
Less than 0	19	13.7	12.3
0 to 100	68	48.9	43.9
100 to 200	32	23.0	20.6
200 to 300	10	7.2	6.5
300 to 400	1	0.7	0.6
400 +	9	6.5	5.8
Missing Cases	<u>16</u>	-	<u>10.3</u>
Total	155		100

systematic relationship exists between regional location and sales growth. The Chi-Square statistic equal to 28.7 is significant at the .02 level. Thus regional dummies are warranted in the sales growth equation, also.

Again the West dominated the highest growth category. Fifty-six percent of the total SMSA's in the highest growth category (\$400 and over) were located in the West though that region only contained 14.4 percent of the SMSA's investigated. In addition, one-quarter of all the SMSA's located in the West had sales growth which placed them in the highest category. The South had only 3 percent of its SMSA's in the highest growth category and 22 percent of all SMSA's in this category although it contained 45 percent of all SMSA's in our sample. The Northeast and Midwest both had 11 percent of all the SMSA's in the highest sales growth category while containing 25 percent and 22 percent, respectively of all SMSA's in our sample. Though the West had one-quarter of all its SMSA's in the highest growth category, neither the South, Northeast nor Midwest had more than 4 percent of their SMSA's in the highest category. Nearly half (47.4 percent) of all SMSA's having zero or negative sales growth were in the South. In addition, while 92 percent of all the SMSA's in both the South and Northeast had sales growth under \$200 per capita, only 84 percent of the Midwest SMSA's and 60 percent of Western SMSA's were in this category.

GROWTH IN SALES PER CAPITA IN SMSA'S BY REGION
(\$ PER CAPITA)

	Neg. to Zero	0 - 100	100 - 200	200 - 300	300 - 400	400 and Over	Percent of All
1. (N = 25) of SMSA's Region	8.0	64.0	20.0	4.0	0.0	4.0	18.0
of all SMSA's all Regions	10.5	23.5	15.6	10.0	0.0	11.1	
2. (N = 31) of SMSA's Region	19.4	35.5	29.0	12.9	0.0	3.2	
of all SMSA's all Regions	31.6	16.2	28.1	40.0	0.0	11.1	22.3
3. (N = 63) of SMSA's Region	14.3	57.1	20.6	4.8	0.0	3.2	
of all SMSA's all Regions	47.4	52.9	40.6	30.0	0.0	22.2	45.3
4. (N = 20) of SMSA's Region	10.0	25.0	25.0	10.0	5.0	25.0	
of all SMSA's all Regions	10.5	7.4	15.6	20.0	100.0	55.6	14.4

$$\chi^2 = 28.67 \quad (15 d.f.)$$

Growth in firm scale or average sales per firm by SMSA designation shows that about one-quarter of all SMSA's had zero or negative growth in average sales per firm, with approximately one-quarter of all SMSA's exhibiting a growth in firm scale of over 10,000 dollars. This rather modest change over a five year period indicates the relative difficulty in increasing the average scale of enterprises in the Black business community as compared to simply starting new business.

<u>Growth in Sales/Firm</u>	<u>Number</u>	<u>Percent of Total SMSA's</u>	
(\$)		<u>Adjusted for Missing Cases</u>	<u>Relative to Total</u>
Less than 0	37	26.6	23.9
0 to 4,000	23	16.5	14.8
4,000 to 10,000	42	30.2	27.1
10,000 to 16,000	21	15.1	13.5
16,000 +	16	11.5	10.3
Missing Cases	<u>16</u>	-	10.3
Total	155		

The growth in scale is not statistically differentiable by region as in the case of sales and firm change. That is, no systematic relationship exists between region and scale growth since Chi-Square equal to 10.6 is significant only at the .57 level. This is reflected, for instance, in the fact that while 30 percent of the West's SMSA's had an average scale increase of greater than \$10,000, 28 percent of the SMSA's in the Northeast, 32.3 percent of the SMSA's in the Midwest, and 22 percent of the SMSA's in the South also had such increases. Only among the largest scale growth categories are differences noteworthy: one-quarter of all SMSA's in

the West had scale growth in excess of \$16,000 per firm compared to 4 percent of the Northeast, 11 percent of the South and 13 percent of the Midwest.

Overall, the SMSA's ranked lowest in terms of both number of firms and receipts appear to be disproportionately concentrated in the South in 1972 and 1977, while the SMSA's ranked highest in terms of firms and receipts appear to be disproportionately concentrated in the West. The West dominated the highest rankings among growth measures of per capita receipts and number of firms per 1000 population. The industrial cities of the Northeast and Northcentral along with some Southern cities dominated the list of slowest growing places. (See tables in Appendix)

Although there is considerable overlap between a low or high ranking for receipts and a low or high ranking for number of firms in both 1972 and 1977, about half of the SMSA's ranked among the lowest or highest twenty by one indicator are not so ranked by the other indicator. In most cases, however, SMSA's ranked low by one measure still fall in the bottom third of all SMSA's relative to the other measure. Nonetheless, there is the occasional exception in which an SMSA ranked low by one indicator is ranked high by the other in the same year (e.g. Memphis, Tennessee in 1977). (See Appendix tables)

Likewise, while there was overlap between initial rankings on the level of receipt or firms in 1972 and the ranking for growth between 1972 and 1977, this overlap was far from complete. Several places among those with the lowest initial 1972 level of business ownership had growth in business ownership over the five

Table 5

CHANGE IN FIRM SCALE IN SMSA'S BY REGION

(\$ Thou Per Firm)

	Neg. to Zero	0 - 4.0	4.0 - 10.0	10.0 - 16.0	16 and Over	SMSA's In % of All S
East (N = 25)						
t of SMSA's Region	16.0	20.0	36.0	24.0	4.0	18.0
t of all SMSA's s all Regions	10.8	21.7	21.4	28.6	6.3	22.5
Central (N = 31)						
t of SMSA's Region	35.5	6.5	25.8	19.4	12.9	45.5
t of all SMSA's s all Regions	29.7	8.7	19.0	28.6	25.0	14.7
West (N = 63)						
t of SMSA's th	28.6	19.0	30.2	11.1	11.1	
t of all SMSA's all Regions	48.6	52.2	45.2	33.3	43.8	
South (N = 20)						
t of SMSA's t	20.0	20.0	30.0	10.0	20.0	
t of all SMSA's Regions	10.8	17.4	14.3	9.5	25.0	

$$\chi^2 = 10.57 \quad (12 d.f.)$$

of SMSA's in per capita receipts in five years. This seems to indicate that while the odds are on the side of better performances among places that are initially doing better, there is still significant possibility for good performance by places with relatively underdeveloped Black business sectors.

Variation in SBA Activity and Black Median Family Income

Two other variables were found to differ by SMSA-regional location: SBA lending activity and median Black family income. Receipt of SBA loans in the years used here for SBA loans (1971, 1972, 1976 and 1977) were found to be systematically related to regional location with a Chi-Square of 59.3 and 60.4, respectively. These are both significant at better than the .0001 level of significance. Again, this suggests that a regional interaction term is warranted in regard to these two variables.

Descriptively, it is apparent that the South over the 1971-1972 period was disproportionately underrepresented in the receipt of SBA funds. Virtually, 55 percent of Southern metropolitan areas had under \$5 in SBA funds per Black capita compared to 8.8 percent of Midwest SMSA's, 10 percent of SMSA's in the West, and 15.4 percent of Northeastern SMSA's falling in this low category. While no SMSA in the South had \$30 or more in per capita SBA loans in this period, 20 percent of the SMSA's in the West, 14.7 percent of Midwest SMSA's and 11.5 percent of Northeastern SMSA's were in this category. Moreover, 22 percent of all SMSA's having greater than \$15 in SBA funds per capita were located in the West although it contained 13 percent of all the SMSA's; 29 percent of all the SMSA's of greater than \$15 per capita in SBA funds were located in the Northeast which contained 17

Table 6

DISTRIBUTION OF SBA LOANS IN SMSA'S BY REGION, 1971 AND 1972
(\$ PER BLACK CAPITA)

	Neg. to Zero	0 - 5	5 - 15	15 - 30	30 - 50	50 and Over	SMSA as %
<u>Northeast</u> (N = 26)							
Percent of SMSA's in NE Region	7.7	7.7	30.8	42.3	3.8	7.7	
Percent of all SMSA's across all Regions	40.0	4.4	14.3	29.7	14.3	40.0	
<u>North Central</u> (N = 34)							
Percent of SMSA's in NC Region	2.9	5.9	28.2	38.2	8.8	5.9	
Percent of all SMSA's across all Regions	20.0	4.4	23.3	35.1	42.9	40.0	
<u>South</u> (N = 75)							
Percent of SMSA's in South	2.7	52.0	37.3	8.0	0.0	0.0	
Percent of all SMSA's across all Regions	40.0	86.7	50.0	16.2	0.0	0.0	
<u>West</u> (N = 20)							
Percent of SMSA's in West	0.0	10.0	35.0	35.0	15.0	5.0	
Percent of all SMSA's across all Regions	0.0	4.4	12.5	18.9	42.9	20.0	

$$\chi^2 = 59.33 \quad (15 d.f.)$$

Table 7

DISTRIBUTION OF SBA LOANS IN SMSA's BY REGION, 1976 and 1977
(\$ Per Black Capite)

(\$ Per Black Capital)							SMSA's in Re-
Neg. to Zero	0-5	5-15	15-30	30-50	50 and Over	% of all SMSA's	
I (N = 26)							
of SMSA's							
region							
7.7	7.7	60.0	26.9	3.8	3.8	16.8	
of all SMSA's							
all Regions							
40.0	5.0	19.1	22.6	12.5	33.3		
II (N = 34)							
of SMSA's							
region							
5.9	11.8	38.2	29.4	8.8	5.9	21.9	
of all SMSA's							
all Regions							
40.0	10.0	19.1	32.3	37.5	66.7		
III (N = 75)							
of SMSA's							
region							
1.3	45.3	46.7	6.7	0.0	0.0	48.4	
of all SMSA's							
all Regions							
20.0	85.0	51.5	16.1	0.0	0.0		
IV (N = 20)							
of SMSA's							
region							
0.0	0.0	35.0	45.0	20.0	0.0	12.9	
of all SMSA's							
all Regions							
0.0	0.0	10.3	29.0	50.0	0.0		

$$\chi^2 = 60.42 \quad (15 d.f.)$$

Table 8

CHANGE IN SEA LOANS TO SMSA'S BY REGION

	(\$ PER BLACK CAPITA)						SMSA's in Re % of all SMS
	Neg. to Zero	0 - 1.5	1.5 - 3.0	3.0 - 5.0	5.0 - 10.0	10.0+	
of SMSA's Region	57.7	11.5	3.8	3.8	11.5	11.5	16.8
of all SMSA's all Regions	18.8	20.0	7.7	12.5	14.3	16.7	
Neutral (N = 34)							
of SMSA's region	52.9	2.9	8.8	5.9	8.8	20.6	21.9
of all SMSA's all Regions	22.5	6.7	3.1	25.0	14.3	38.9	
(N = 75)							
of SMSA's	46.7	13.3	12.0	6.7	17.3	4.0	48.4
of all SMSA's all Regions	43.8	66.7	69.2	62.5	61.9	16.7	
t = 20)							
of SMSA's	60.0	5.0	0.0	0.0	10.0	25.0	12.9
of all SMSA's regions	15.0	6.7	0.0	0.0	9.5	27.8	

$$\chi^2 = 17.78 \quad (15 \text{ d.f.})$$

South though it contained 48 percent of all SMSA's.

Though there were some improvements for the South by the 1976-1977 period it still lagged behind the other regions. With 48 percent of the total SMSA's, the South had only 41 percent of the SMSA's experiencing greater than \$5 increases in per capita SBA loans, and only 17 percent of the SMSA's experiencing greater than \$10 per capita increases in SBA monies. In addition, while none of the SMSA's in the West had less than \$5 per capita in SBA funds during the 1976-1977 periods, the South still had 47 percent of its SMSA's experiencing such low levels. Because of the extremely initial low levels of 1971-1972 funding in the South, significant increases in SBA funding still left the South with no SMSA's in either of the two highest categories of funding by 1976-1977 of over \$30 and \$50 per capita. The West and Midwest, while accounting for 35 percent of all SMSA's, accounted for 82 percent of all SMSA's in the greater than \$30 per capita categories.

The combination of low initial starting position and modest gains in the South and large, significant gains in the West is also reflected in Black median income. In 1972, the South had nearly 80 percent of its SMSA's averaging less than \$6,000 in Black median family income, whereas the Northeast and Midwest had no SMSA's in those lowest categories; and the West had 20 percent of its SMSA's in those categories. The Midwest dominated the list of high income SMSA's in 1972, with 54.5 percent of all SMSA's with over \$8,500 in Black family income being located in that region though it contained but 22 percent of all SMSA's sampled. By contrast, the South had 48.4 percent of all SMSA's located in its region, but only 9.1 percent of the SMSA's in the highest category. By 1977, improvement of Black income in

\$10,000 in Black median family income though no other region had an SMSA in this category. Whereas the Midwest had nearly 55 percent of the SMSA's in the highest income category in 1970, it contained but 36 percent of the SMSA's in the highest income category by 1980. By 1980, the Northeast, Midwest and South all had between 29 and 32 percent of their SMSA's experiencing increases in Black median family income of under \$6,000, whereas the West had only 15 percent of its SMSA's in these lowest categories. Moreover, though the West contained 12.9 percent of all the SMSA's studied, it had 29 percent of those SMSA's which experienced growth in Black median family income in excess of \$10,000.

To summarize, we have observed that there is fairly wide variation in the patterns of growth of Black business ownership by SMSA. The wide-ranging variation exists both for growth in per capita receipts and for growth in firms. However, these two indicators do reveal somewhat different patterns of variation. We, therefore, turn next to the results of the regression analysis which applied the model developed above to explain the observed variation.

Table 9

MEDIAN BLACK FAMILY INCOME IN SMSA's BY REGION, 1972

	Less than 4,000	4 - 5,000	5 - 6,000	6 - 7,000	7 - 8,500	8,500 +	SMSA's in Region % of all SMSA's
(N = 26)							
f SMSA's Region	0.0	0.0	0.0	42.3	50.0	7.7	16.8
f all SMSA's 11 Regions	0.0	0.0	0.0	28.2	31.0	18.2	
total (N = 34)							
f SMSA's Region	0.0	0.0	0.0	26.5	55.9	17.6	21.9
f all SMSA's 11 Regions	0.0	0.0	0.0	23.1	45.2	54.5	
= 75)							
f SMSA's	4.0	41.3	33.3	17.3	2.7	1.3	48.4
f all SMSA's 1 Regions	100.0	93.9	92.6	33.3	4.8	9.1	
= 20)							
f SMSA's	0.0	10.0	10.0	30.0	40.0	10.0	12.9
f all SMSA's Regions	0.0	6.1	7.4	15.4	19.0	18.2	

$$\chi^2 = 100.66 \quad (15 d.f.)$$

Table 10

MEDIAN BLACK FAMILY INCOME IN SMSA'S BY REGION, 1977

		(\$ THOU)					SMSA's in Reg- as % of all SMSA's	
		less than 8,000	8-10,000	10-12,000	12-14,000	14-17,000	17,000+	
(N = 26)								
SMSA's in all SMSA's in Regions		0.0	0.0	11.5	57.7	19.2	11.5	16.8
all SMSA's in Regions		0.0	0.0	8.1	20.8	19.2	27.3	
all SMSA's in Regions		0.0	0.0	0.0	52.9	35.3	11.8	21.9
all SMSA's in Regions		0.0	0.0	0.0	25.0	46.2	36.4	
all SMSA's in Regions		1.3	10.7	41.3	38.7	5.3	2.7	48.4
all SMSA's in Regions		100.0	100.0	83.8	40.3	15.4	18.2	
all SMSA's in Regions		0.0	0.0	15.0	50.0	25.0	10.0	12.9
all SMSA's in Regions		0.0	0.0	8.1	13.9	19.2	18.2	

 $\chi^2 = 43.44$ (15 d.f.)

GROWTH IN MEDIAN FAMILY INCOME IN SMSA'S BY REGION
(\$ Thou)

	2-4,000	4-6,000	6-8,000	8-10,000	10,000 and Over	SMSA's in a % of A
<u>East</u>						
Percent of SMSA's in NE Region	7.7	30.8	42.8	11.5	7.7	16
Percent of all SMSA's in NE Region	100.0	17.8	12.9	18.8	28.6	
<u>South</u>						
Percent of SMSA's in AC Region	0.0	29.4	55.9	8.8	5.9	21
Percent of all SMSA's in AC Region	0.0	22.2	22.4	18.8	28.6	
<u>West</u>						
Percent of SMSA's in W Region	0.0	32.0	58.7	8.0	1.3	48
Percent of all SMSA's in W Region	0.0	53.3	51.8	37.5	14.3	
<u>North</u>						
Percent of SMSA's in N Region	0.0	15.0	55.0	20.0	10.0	12
Percent of all SMSA's in N Region	0.0	6.7	12.9	25.0	28.6	

$$\chi^2 = 18.54 \quad (12 d.f.)$$

REGRESSION RESULTS

Regression equations were estimated for each of the four dependent variables utilizing the independent variables discussed above. After the initial runs, separate regional variables were dropped from the analyses. In all models the regional variable was interacted with the Black income variable since regional income variations appeared to be the main factor associated with large regional impacts detected in initial regressions. In all of the models except the growth in receipts model, the regional dummy was also interacted with the SBADIF variable. We also omitted the MBDA 76 variable from the final analyses because of general dissatisfaction with this measure. We were only able to obtain data for one year on this variable which did not enable us to enter the initial level and/or the change variables used to measure the other independent variables. The MBDA 76 variable did not reach customary levels of significance in any of the initial runs.

The models estimated in this study did not include any variables to measure differences in local industry structure. This omission was forced by difficulty in obtaining adequate data by industry for these SMSA's. In future work, we also hope to include industry variables and to refine some of our measures for local economic factors, availability of financing, and government policy. However, the results obtained from this preliminary analysis appears both useful and interesting.

We generally found that each measure of growth appeared to capture a different aspect of the growth process. Our model accounted for a significant amount of the observed variation in each instance. And except for the employment equation, many of the independent variables appeared to be significant explanans

The results of our estimate of the model to explain growth in receipts per capita is shown in Regression Table 1. The R^2 of this equation is .53 indicating that the model performs reasonably in explaining the observed variation in receipt growth among the various SMSA's. The F statistic for the equation is 4.7 indicating that the equation is statistically significant at better than the .01 level. Eleven of the variables were statistically significant at better than the .10 level. Thus this equation performed well overall.

The overall results offer moderate support for the hypothesis that variations in local demand conditions are an important determinant of growth in receipts. First, general local economic conditions as measured by the change in unemployment rate (UNEMDIF) had the expected sign and reached a moderate level of significance. However, both the initial level of per capita income in the SMSA (SUIN) and the change in per capita income (SUINDIF) had the wrong signs and were not close to significance. We obtained results for the variables measuring the impact of demand in the Black community, which support the importance of this factor. The initial level of Black family income (BFAMIN72) was positive and significant at better than .01 significance level in all regions. This variable was of relatively large magnitude and registered the highest level of significance of all of the variables included both in terms of the t-statistic and the beta coefficient. The results indicate that the impact of the level of Black income was more powerful in the West and least powerful in the Northeast and North Central regions. Moreover, although the Black population variable (PERBLK) did not register significance at the 10 percent level, its sign was positive and its

suggest that the business cycle and the level of Black family income are important factors in determining the growth in receipts. The results provide modest support for the hypothesis that conditions in the Black community are more important than general conditions in the local economy.

The results also suggest that the availability of resources is an important factor. Both the initial levels of professionals and managers (PRMN72) in the Black community and the change in the level of professionals and managers (PRMN72DIF) registered significance. In both cases the coefficients were of fairly large magnitude. The change in the level of Black professionals and managers was particularly significant. The level of Black bank loans in 1972 (BBLN72), the level of SBA loan activity in 1972 (SBA72), and the change in SBA activity (SBADIF) all were all significant and all had the expected signs. Only the change in Black bank loans (BBLNDIF) failed to reach significance although this variable also had a positive coefficient. In short, the availability of both potential entrepreneurs and the availability of capital appear to be positively related to growth in receipts.

The results in general do not support the hypotheses grouped under the relative ability to compete. Neither the change in segregation (SEGDIF) or the level of initial segregation (SEG72) registered anywhere close to being significant. The change had the predicted positive sign even though the initial level even had the wrong sign. Evidently, the initial degree of segregation was unrelated to growth in receipts. The initial level of education in the Black community (BLKED72) was also insignificant and had the wrong sign. The change in the education level (BLKEDDIF) had the right sign but was far below customary

variables SMSA (change) SMSA (medium) also failed to register close to customary levels of significance. The latter variable had the predicted sign while the former did not. Thus these results suggest that neither market size nor the efficiency of Black resources, at least as evaluated by these global measures, appear to be related to observed variations in growth of receipts. The only variable in this group that registered significance was Black concentration changes (BLKCONDIF). This variable was negative, of fairly large magnitude and significant at the .01 level. The initial level of concentration (BLKCON72) was not significant, however, and also registered a negative sign. Evidently, white flight during this period was negatively related to growth in the receipts of Black firms. To the extent that this measure captures discrimination, it supports the hypothesis concerning the importance of discrimination. However, we would caution against such an interpretation. Inspection of the correlation matrix suggests that this variable may well be capturing the declining SMSA's of the Northeast and the North Central. In any case, further analysis would be necessary to interpret this result.

Finally, the equation included only one measure of government policy. We have already discussed the SBA variable. The results clearly indicate that the level of SBA loan activity was an important positive contributor to growth in receipts between 1972 and 1977. The change in SBA loan activity also turned out to be one of the more significant variables. Moreover, the impact of the change in SBA activity on growth of receipts did not differ significantly by regions.

In sum, the results for this model suggests that the growth in the Black

REGRESSION TABLE 1 : CHANGE IN BLACK RECEIPTS PER CAPITA

	Regression Coefficient	Beta Coefficient	Standard Error	t Value
94.30	- 18.354	- 0.146	10.134	1.81
-	0.391 E-01	- 0.063	0.057	0.69
-	0.682 E-01	- 0.178	0.050	1.36
-	0.975 E-02	- 0.070	0.013	0.75
-	0.826 E-01	- 0.539	0.031	2.68
-	0.352 E-01	- 0.621	0.012	3.02
-	0.396 E-01	- 0.385	0.098	4.06
-	0.293 E-01	- 0.129	0.096	3.06
-	3.212	0.044	2.438	1.32
-	3.066	0.200	5.549	0.55
-	7.187	- 0.227	3.116	2.31
-	8.804	0.227	3.273	2.69
-	6.572	0.186	3.654	1.80
-	27.249	- 0.204	12.234	2.23
-	3.523	0.154	3.139	1.17
-	1.633	- 0.058	2.887	0.56
-	0.294	- 0.025	1.483	0.22
-	38.858	0.092	46.427	0.83
-	6.520	0.037	29.697	0.22
-	0.782	0.044	1.430	0.53
-	38.405	0.060	67.506	0.53
-	15.772	0.032	44.409	0.33
-	4.764	0.280	1.566	3.00
-	3.349	0.227	1.677	2.00

* Significant at .01 level.

** Significant at .05 level.

*** Significant at .10 level.

are positive contributors to growth in receipts. The state of the business cycle as measured by changes in the unemployment rate and increases in Black concentration were negatively associated with Black receipt growth. Segregation, efficiency, and general levels of income in the SMSA appear to be insignificant determinants of growth in the receipts of the Black business sector.

Growth in Number of Firms

The results of our estimate of the model to explain growth in the number of firms are displayed in Regression Table 2. In this equation, in addition to the regional income interaction variables, we also interacted SBA activity with region. In addition, we added a dummy variable to measure growth in firm size as measured by growth in receipts per firm. This equation was the overall most successful of the four equations. The R^2 was about .78 and the F was 12, making this both the most significant equation and the equation which explained the most variance. As we indicated, the results for this equation were different from the results for the receipt equation, suggesting that firm formation/failure is a somewhat different process from receipt growth.

The results for the local economic conditions variables differed from the results for these variables in the receipt equation. In general, the business cycle variable (UNEMDIF) had nearly zero significance. On the other hand, the change in surrounding income (SUINDIF) was significant and had a positive coefficient. Thus the general growth in market demand appears somewhat important for growth in number of firms. We take this variable to mean that growth areas have greater growth in numbers of Black firms than non-growth areas. This interpretation is

percentage increases in the Black population was positive and highly significant. On the other hand, the initial level of Black family income did not have the same positive impact on firm growth as it did on receipt growth. In general, the initial level of Black family income had a positive though insignificant coefficient in the West (BFAMIN72), in the South the impact was small and negative (BFAMIN72* South), and in the Northeast (BFAMIN72* NE) and in the North Central (BFAMIN72* Midwest) the impact was negative and somewhat larger. All the regions outside of the West had impacts for the family income variable that were significantly different from the impact in the West. Evidently, outside of the West SMSA's with high initial levels of Black family income experienced lower growth in numbers of firms. The impact of changing Black family income (BFINDIF) was negative and insignificant.

In sum, the results suggest that being in a growth area is important for growth in the number of firms. Moreover, growth in the size of the Black market also appears to have a strong impact on Black firm growth. Surprisingly, however, the initial level of Black Family Income was a positive influence only in the West and there the coefficient failed to reach customary significance levels. The number of firms appeared to grow slower in more affluent SMSA's outside of the West especially in the North Central and Northeast. This, however, should not be interpreted as providing strong support for Brimmer's hypothesis that Blacks opt for employment over self-employment where such opportunities exist. Inspection of the correlation matrix suggests that there was a negative association between initial levels of affluence and improvement in Black Family Income in the North Central and Northeast. Thus the areas with initially high levels of affluence

growth. In particular, the most significant factor in the equation predicting expansions in the number of firms was growth in the pool of professional and managerial manpower (PRMNDIF). Moreover, the initial level of professional and managerial manpower (PRMN72) was the second most significant variable. The related variable, the initial level of Black education (BLKED72), also was highly significant. The importance of these variables were much higher in this equation than they were in the receipts equation.

As a group, the capital availability variables were not as important in the equations explaining growth in the number of firms as they had been in the receipt equation. The initial level of SBA activity (SBA72), the initial level of Black bank activity (BBLN72) and the aforementioned initial level of family income (BFAMIN72), all failed to exert a significant positive impact on firm growth rates. However, changes in SBA loan activity (SBADIF) were positive and significant outside of the South. This was an especially important variable in the West. In the South, SBA loan activity had an impact fairly close to zero in predicting firm growth. Thus while capital availability registered some importance in explaining the variation, in our sample, at least in the non-South, variations in professional, managerial and educated manpower were the most important resource factors in the explanation for growth in number of firms over this period.

The ability to compete variables continued to be fairly unimportant as a group. Neither the change in the segregation (SEGDIF) or the initial level of segregation (SEG72) registered significance at customary levels. Black

REGRESSION TABLE 2: CHANGE ON NUMBER OF BLACK FIRMS PER 1000 BLACK POPULATION

	Regression Coefficient	Beta Coefficient	Standard Error	t Value
-5.410	-0.101 E-02	-0.001	0.083	0.0
	0.874 E-03	0.118	0.046 E-02	1.
	0.736 E-04	0.016	0.041 E-02	0.
	-0.137 E-03	-0.083	0.010 E-02	1.
	0.225 E-03	0.127	0.240 E-03	0.
	-0.418 E-03	-0.426	0.090 E-03	4.
X NE	-0.350 E-03	-0.469	0.080 E-03	4.
X MIDWEST	-0.281 E-03	-0.312	0.080 E-03	3.
X SOUTH	0.057	0.194	0.020	2.
	0.548 E-01	0.081	0.036	1.
	-0.148 E-01	-0.034	0.026	0.
	0.146	0.310	0.027	5.
	0.126	0.296	0.029	4.
	-0.111	-0.071	0.098	1.
	0.175 E-01	0.066	0.025	0.
	0.979 E-02	0.029	0.234	0.
	-0.195 E-01	-0.137	0.012	1.
	0.515	0.104	0.370	1.
	0.635	0.301	0.239	2.
	-0.146	-0.022	0.406	0.
F (4,0-10.0)	-0.380	-0.069	0.356	1.
F (10,0-16.0)	-0.480	-0.064	0.435	1.
F (OVER 16.0)	-0.264	-0.032	0.485	0.
	-0.875 E-04	-0.060	0.080 E-03	1.
	-0.324	-0.042	0.580	0.
ARGE)	0.329	0.055	0.374	0.
IDU)	0.589 E-01	0.297	0.023	2.
NE	-0.304 E-01	-0.048	0.039	0.
MIDWEST	-0.398 E-01	-0.130	0.025	1.
SOUTH	-0.657 E-01	-0.101	0.038	1.
	0.681 E-03	0.004	0.014	0.

.78

12.0

139

* Significant at .01 level

** Significant at .05 level

*** Significant at .10 level

concentration (BLKCONDIF) were also generally of low statistical significance. None of the scale or market size variables (FSCALE, SMSA), reached standard significance levels. The only variable in this group that registered significance was the initial level of Black education (BLKED72). And as we have seen, given the performance of the professional and managerial variable, this variable may well be interpreted as a resource availability variable. In any case, at least for the range of variation within our sample, variation in the factors included in this group appear to be unimportant in explaining the observed variation in growth in number of firms.

Again, the SBA variable is the only government program variable explicitly included in the analysis. Changes in this variable (SBADIF) appear to be positively and significantly related to growth in the numbers of Black firms at least in the non-South. In the South the variation observed in our sample had little or no significant impact.

Firms with Paid Employees

The results for the model which we estimated to explain growth in the number of firms with paid employees are shown in Regression Table 3. The specification of this model was the same as the specification for the growth in total number of firms equation. This equation was also relatively successful having an R^2 of .57 and an F of 4.5. However, it was clearly somewhat less robust than the all firm equation. Once again, however, the results differed for this model from the results of the other two equations discussed above.

change in local unemployment rate (UNEMDIF), and the growth in the Black population (PERBLK) all failed to obtain significance. The change in Black family income (BFINDIF) also failed to achieve the customary significance levels and was negative. The initial level of Black family income in the West (BFAMIN72) was positive and insignificant. However, all of the other regions had coefficients on the initial levels of Black family income that were negative and significantly different from the coefficient in the West. Thus this suggests, as was the case for the all firms model, that growth of Black firms with paid employees was lower in initially more affluent SMSA's outside of the West, while in the West the rate of growth increased with the level of initial affluence. Thus the only local economic condition variable that registered significance was the initial level of Black family income. However, its impacts differed by region. It was strongly negative in the North Central less negative in the South and Northeast, and positive but insignificant in the West. These results appear consistent with the earlier conjecture that decline in areas with initial affluence impacted firm growth during this period.

The results for the resource constraint variables are also somewhat different. In this case, as in the other two equations, the change in the professional and managerial pool is significant and positive (PRMNDIF). We also find that the change in the level of Black education (D4) is positive and mildly significant. However, although the initial level of professionals and managers (PRMN72) and the level of education in the SMSA both have positive coefficients, neither variable attains customary levels of significance. Nonetheless, the performance of the change variables reinforces the importance of the size of the professional and

The initial levels of SBA and Black bank loans (SBA72, BBLN72) were both insignificant. However, the change in Black bank loans (BBLNDIF) is a positive and significant variable. The results suggest that the relationship is curvilinear. The change in SBA loan activity (SBADIF) is positive and insignificant in the West. However, changes in SBA activity in the other regions were negatively related to the growth of firms with paid employees in the non-Western region. These coefficients were significant in the Northeast (SBADIF x NE) and North Central (SBADIF x MIDWEST) but insignificant in the South (SBADIF x SO). Apparently, SBA lending activity was not helpful in creating firms with paid employees. Once again, the impact of SBA loan activity was significantly different in the West. SBA loan activity had its most significant negative relationship in the North Central region. These regional differences in the SBA variable seem to reinforce the economic decline hypothesis.

The variables included in the third group again performed poorly. The initial level of segregation (SEG72), the change in segregation (SEGDIF), the initial level and change in Black concentration (BLKCON72, BLKCONDIF), the initial level of firm scale (FSCALE), and the market size dummies (SMSA) all failed to achieve usual levels of significance. As mentioned the change in the level of education (D4) was significant. However, the initial level of education (BLKED72) was not significant.

Changes in SBA loan activity appears to be negatively related to the variation in growth of firms with paid employees in our sample in all regions except

REGRESSION TABLE 3: CHANGE IN BLACK FIRMS WITH PAID EMPLOYEES PER 1000 BLACK POPULATION

	Regression Coefficient	Beta Coefficient	Standard Error	t Value
759	- 0.101 E-101	- 0.029	0.026	0.38
	0.179 E-03	0.107	0.015	1.24
	0.512 E-04	0.049	0.013	0.39
	- 0.378 E-04	- 0.100	0.003	1.17
	0.325 E-04	0.080	0.080	0.42
	- 0.111 E-03	- 0.425	0.030	3.75
	- 0.627 E-04	- 0.370	0.030	2.47
	- 0.652 E-04	- 0.317	0.020	2.64
	0.693 E-02	0.012	0.636	1.09
	0.340 E-01	0.219	0.016	2.19
	- 0.163 E-02	- 0.193	0.086	1.90
	- 0.202 E-02	- 0.020	0.089	0.22
	0.220	0.205	0.088	2.50
	0.995 E-02	- 0.103	0.093	1.07
	- 0.415	0.116	0.032	1.30
	0.816 E-02	- 0.134	0.081	1.00
	- 0.372 E-02	- 0.048	0.074	0.50
	- 0.253 E-02	- 0.078	0.038	0.66
	0.205	0.181	0.118	1.72
	0.109	0.226	0.076	1.42
	0.790 E-01	0.052	0.129	0.61
	0.182	0.146	0.113	1.62
	0.334	0.195	0.138	2.47
	0.307	0.165	0.154	2.00
	0.356 E-04	- 0.107	0.030	1.40
	- 0.244	- 0.139	0.184	1.32
	- 0.152	0.112	0.119	1.21
	0.104 E-01	0.230	0.074	1.44
	- 0.226 E-01	- 0.158	0.012	1.80
	- 0.247 E-01	- 0.417	0.080	3.00
	- 0.191 E-01	- 0.129	0.012	1.50
	- 0.933 E-04	- 0.002	0.044	0.04

R² = .57

F = 4.46

N = 139

* Significant at .01 level.

** Significant at .05 level.

*** Significant at .10 level.

In general, the use of the model to explain growth in paid employment was the most unsuccessful of the four equations. The R^2 for this equation was .48. However, the F statistic was only 1.73, which was significant only at the five percent level. The model specification was the same as the last two models.

In general, only two of the variables were significant in this equation. SBA in the South was significant and negative and not significantly different from zero elsewhere. The only other variable that achieved customary levels of significance was the dummy for SMSA's experiencing increases in average receipts per firm greater than \$16 thousand. This in fact was the most highly significant variable in the equation both in terms of its t-value and beta coefficient. Obviously, the SMSA's with the largest increases in firm scale are best able to generate more employment. Taken as a whole, however, these results suggest that the growth in employment in Black firms model should be respecified. The factors that generate growth in firms and receipts do not appear to have a strong direct relationship to employment growth.

REGRESSION TABLE 4: CHANGE IN PAID EMPLOYMENT PER 1000 POPULATION

	Regression Coefficient	Beta Coefficient	Standard Error	t Value
1.00	-1.114	-0.189	0.902	1
	0.362 E-02	0.111	0.050 E-01	0
	0.299 E-02	0.127	0.047 E-01	0
	-0.362 E-03	-0.057	0.088 E-02	0
	-0.130 E-02	-0.193	0.022 E-01	0
{ NE	-0.496 E-03	-0.130	0.073 E-02	0
{ MIDWEST	-0.562 E-03	-0.201	0.070 E-02	0
{ SOUTH	-0.667 E-03	-0.203	0.066 E-02	1
	-.091	-0.080	0.197	0
	-0.225	-0.105	0.275	0
	-0.291	-0.166	0.255	1
	-0.202	-0.098	0.363	0
	-0.208	-0.129	0.312	0
	0.285	0.054	0.812	0
	-0.174	-0.170	0.234	0
	0.180	0.148	0.185	1
	0.847 E-01	0.153	0.115	0
	5.568	0.299	3.308	1
	2.533	0.320	2.138	1
(0-4.0)	-0.604	-0.022	3.889	0
(4.0-10.0)	0.284	0.014	3.235	0
(10.0-16.0)	0.815	0.030	3.717	0
(OVER 16.0)	16.520	0.606	4.138	4
	-0.865 E-05	-0.001	0.083 E-02	0
SE	-3.331	-0.137	4.477	0
SUM	-1.290	-0.062	3.143	0
	0.252	0.277	0.184	1
NE	-0.361	-0.153	0.301	1
MIDWEST	-0.133	-0.079	0.254	0
SOUTH	-0.664	-0.278	0.304	2
	-0.154	-0.215	0.106	1

In this section of the paper we have summarized the quantitative implications of the estimated equations. These estimates were derived by differentiating the estimated equations with respect to each variable that was found to be significant. Of course, these calculations should be taken with an appropriate grain of salt. What they suggest is the quantitative association between these factors and growth of the Black owned business sector for the particular sample and time period covered by this analysis. To the extent that our model has specification and statistical problems, these estimates will be biased. The multi-collinearity that exists between some of the measures should certainly caution against placing too much reliance on these point estimates. Moreover, to the extent that the historical period from 1972-1977 may have been peculiar in ways not reflected in our specification, the ability to extend these results beyond the sample period will be limited. Nonetheless, the calculations should provide rough order of magnitude estimates of the relative impacts of several important factors.

Receipts Per Capita

- For every one percent increase in the unemployment rate, per capita sales decreased by \$18.35.
- A one thousand dollar increase in the initial starting level of Black median family income is associated with a \$82.60 increase in Black receipts per capita in the West, a \$47.40 per capita increase in the Northeast, a \$43 increase in per capita sales in the Midwest, and a \$53.30 increase in the South.
- For every new Black professional or manager per 1000 Black population, Black per capita sales increased by \$8.80, all other factors constant.

SBA financing was also associated with faster receipt growth. Every additional \$1 per capita increase in the initial level of SBA financing is associated with a \$3.35 increase in per capita sales.

- Every \$10 per capita increase in the initial level of Black commercial bank loans is associated with an increase in per capita sales of \$7.20.
- Each one percentage point increase in the concentration of Black to total population decreases Black per capita sales by \$27 to \$28.

Firm Growth

- Every \$1,000 increase in total per capita income in an SMSA over a five year period is associated with .874 net new firms per 1000 Black population. The increase in the average SMSA's per capita income between 1972 and 1977 was \$1,730. This increase was therefore associated with 1.5 net new firms per 1000 Black population, all other factors held constant.
- Every 100 percentage point increase in the absolute size of the Black population is associated with 5.78 additional firms per 1000 Black population.
- Median Black family income in the West had no statistically significant impact on firm change; but Black median family income was associated with firm declines in the Northeast, Midwest and South. Per 1,000 Black population, every \$5,181 increase in Black median family income was associated with 1 fewer firms in the Northeast; an \$8,000 increase in the North Central results in a 1 firm decline; and a \$17,857 increase in the South leads to a 1 firm decline in the South.
- For every new Black professional or manager hired and reported to the EEOC, .146 net new firms were formed. There was a net increase of one new firm, therefore, for every 6.85 new Black professionals and managers hired by majority firms reporting to the EEOC.

An initial one year higher starting level of educational attainment for the

formed over the five year period.

- Every \$1 million increase in SBA loans in the West was associated with a net firm increase of 59 firms. New net firm formation per \$1 million dollar SBA increase appeared lower in the Northeast and Midwest, but this difference was not statistically significant. On the other hand, SBA increases of every \$1 million in the South was associated with a net decline of 6.8 firms.

Firms with Paid Employees

- As in the total firm equation, the impact of higher initial levels in Black median family income in the West is negligible and insignificant, but significantly negative in the Northeast, Midwest, and South. Every \$1,000 increase in BMFI in the Northeast is associated with a fall of .0785 firms with paid employees per 1000 Black population. Every \$1,000 increase in Black median family income is associated with a .0302 firm decline in the Midwest, and a .0327 firm decline in the South. A \$7,000 dollar increase in BMFI in an SMSA of 100,000 Black population would therefore be associated with a numerical loss in firms with paid employment of 55 in the Northeast, 21 in the Midwest, and 23 in the South.
- Every new professional or manager reported to the EEOC is associated with a .22 increase in firms with paid employment. Thus there was a net income of one firm with paid employment for every 4.55 new Black professionals hired by majority firms reporting to the EEOC.
- A one year increase in the average years of education completed by the Black population over 25 years of age would be associated with a .205 additional firms with paid employment for every 1000 Black population. In an SMSA of 100,000 the Black population would experience a 20.5 addition in firms with paid employment -- if average adult educational attainment increased by one year SMSA-wide.
- Every \$10,000 increase in Black commercial bank loans was associated with a

- The impact of increases in SBA loans was negatively associated with increases in the number of firms with paid employees in the Northeast and Midwest; also its impact was not significantly different from zero in the West and South. Every 1 million dollar decrease in SBA lending over the five year period investigated here was associated with losses in numbers of firms with paid employees in the Northeast and Midwest of 22.6 and 24.7, respectively.
- SMSA's experiencing firm size increases of greater than \$10,000 per firm were associated with a .31 to .33 net increase in the number of firms with paid employees for every 1000 Black population. An SMSA of 100,000 Black population experiencing scale growth in excess of \$10,000 per firm, all other factors held constant, would have experienced a net increase of 31 to 33 firms with paid employees.

Paid Employment

- A one year increase in educational attainment by the Black population over 25 years of age was associated with an increase of 5.6 new workers per 1000 Black population.
- Consistent with our other findings on the nature of SBA impacts, increases in SBA financing was negatively associated with gains in paid employment in the South and was not significantly different from zero in all other regions. Every \$1 million increase in SBA loans in the South was associated with an employment loss of 412 workers in the Black business sector.
- Average firm growth in an SMSA greater than \$16,000 per firm was associated with a sizable differential of 16.50 employees per 1000 Black population compared to SMSA's with negative or zero scale growth. Growth in firm scale below this amount had no significant impact on changes in paid employment.

In this report, we have presented the results of our study of the variation in the growth rates of the Black owned business sectors in the 156 SMSA's with more than 100 businesses between 1972 and 1977. The analysis of the data on growth rates indicated clearly that there was a wide range of variation in the growth experiences of these SMSAs. This wide ranging variation, by itself, suggests that the potential growth of the minority business sector may be greater than has been supposed by some previous studies. If the growth performances of all the SMSA's had attained the levels attained by the top 20 SMSA's or if the SMSA's in the other regions had performed as well as the SMSAs in the West, the rate of growth of the Black owned business sector nationwide would have been much higher.

Our analysis suggests that market demand and resource availability are the two most important general factors influencing the rate of growth of Black owned businesses. Greater levels of market demand exert a significant influence on both growth in numbers of firms and growth in receipts although the demand factors involved differ somewhat for the two measures of growth. For receipts, the state of the business cycle and the overall level of Black consumer purchasing power appear to be the most significant demand factors. On the other hand, the growth of the local economy and the growth of the Black consumer market appear to be more important factors for firm growth. Moreover, the differential regional impacts for the initial level of Black family income suggests that general economic decline in Black consumer markets in the SMSAs of the North Central and Northeast had a significantly negative impact on the growth rate of Black

For receipt growth the level of financial capital provided by both SBA and Black banks appears to be a strongly significant factor. The change in SBA capital also was a positive factor in increasing receipt growth. However, the initial levels of SBA activity were not significant in the firm growth equations. This may well be because of the impact of the declining regions. On the other hand, the change in SBA activity was a positive factor in the non-South. Apparently, there were significant shifts in SBA funding between 1972 and 1977. These shifts, however, did not have a beneficial impact on growth in the number of Black owned firms. This is especially true for firms with paid employees outside of the Western region of the country.

The level and change in the availability of professional and managerial manpower was a surprisingly important factor in the three basic equations. Especially since our measure for this variable was so indirect. This variable was measured by the numbers of Black individuals employed in professional and managerial occupations in firms which report to the EEOC. Thus, this variable may also be a proxy for the degree of discrimination as well as high level manpower availability. The power of this variable may therefore be at least partially explained by the fact that it also captures variations in the level of discrimination within the SMSA. However, with our current data we can not provide an independent check on this possibility.

While resource availability and market demand appeared to be significant factors, the measures for the ability to compete were generally of little importance. Our results provide no confirmation of the importance of segregation.

measured and market segregation may not be the same as housing segregation. Moreover, market scale and firm scale, in general, did not contribute anything to explaining observed variation in growth rates.

Our analysis suggests rather strongly that growth in receipts, firms, and employment are somewhat different processes. As we have noted, each measure of growth appears to have a quantitatively and qualitatively different association with the various explanatory factors. Most of the factors included in our model were not generally significant in explaining employment growth. Growth in receipts appeared somewhat more sensitive to the levels of the variables while growth in number of firms appeared somewhat more sensitive to changes in the variables. This suggests that firm formation is more of a function of the expansion of opportunities while receipt growth is a function of the level of opportunities.

We have been somewhat hesitant to draw anything except the broadest policy conclusions from this preliminary analysis. The only explicit policy variable included in the analysis was the SBA variable. As we have seen the results suggests that the variation in SBA loan levels observed in our sample was generally positively associated with variations in growth measures. However, it was also evident that the growth process is complex and the ability of SBA loans to make a positive contribution is not independent of what else is going on in the SMSA.

In general, the broadest implications of our analyses for policy appear to be straightforward. It is evident that policies which expand market opportunities for Black owned businesses will generally increase the rate of growth. In general, an

performance in state of the business cycle in an SBA will probably be a positive factor in stimulating Black business ownership. Therefore, policies which improve the economic climate in general, at least to the extent that they create a general growth environment, will be beneficial to Black businesses. However, the impact of these policies will not be great unless there is specific improvement in the Black community. Therefore, it is important for Black business development to have policies which improve the general economic position of the Black population. However, increases in the average Black family income in general do not necessarily translate into increased growth for the Black business sector. In some regions, especially the South, increasing average affluence may have had a negative impact. This suggests that policies may be required to enable Black businesses to be more effective at serving the more affluent segments of the Black population or the more affluent market in general.

It is also evident from our results that policies which increase the availability of capital generally are beneficial to Black business growth. However, the results also strongly suggest that different types of financing will have differential impacts. This suggests that policies should not only pay some attention to expanding the availability of capital but also to the type of capital made available. Moreover, there is a strong implication that making capital specifically available to the Black business sector is important. Thus this supports a policy of continued targeting of SBA funds. The results also suggest that expanding the financial resources of Black banks and perhaps other institutions which have a higher than average propensity to service the Black owned business sector could be important. There is also some evidence if we read the findings of differential impacts in the

results imply that expanding capital availability in areas experiencing particularly sharp declines in market opportunities may not be effective in the absence of policies to expand market opportunities or to increase market shares. This could be read to imply that acquisitions may be a more effective approach than new startups in areas where markets are not expanding rapidly.

The results suggest that policies which encourage the expansion of the pool of professionals and managers can have a beneficial impact on Black business development. Such policies would apparently have a particularly strong impact on firm formation. Moreover, contrary to the general prediction of other writers, expansion of these high level opportunities in mainstream business firms do not appear to reduce the rate of firm formation. On the contrary, expansion of the pool of manpower appears to be complimentary rather than competitive with the expansion of Black business ownership. The exact mechanism of this effect is not clear from our study. However, the impact is among the strongest and most consistent across all three of the primary models. Thus advocates of Black business expansion should encourage policies which lead to the expansion of opportunities for high level employment in mainstream private enterprises.

In general, our results imply that segregation of Black housing and the concentration of Black population in general do not have any significant impact on Black business development. Thus these factors need not be taken into account in business development strategies. Apparently when the other factors are present Black business can grow effectively irrespective of the level or trends in segregation.

or existing Black firms apparently have little overall impact and need not be taken into account in policies concerned with Black business development. Apparently, SMSA's of all sizes can sustain a proportionate Black business sector.

At the level of generality of our analysis it is not possible to suggest the best mechanisms for expanding either market opportunities or financing. The results do suggest, however, that market processes will generally result in widely varying performances across the various SMSA's. Left to the vagaries of the market, it is likely that many SMSA's will continue to experience slow and even negative rates of growth. Moreover, in light of the relatively limited gains in the rate of business ownership discussed in the introduction, it is clear that general reliance on market forces will not bring about parity in the rates of business ownership. It is therefore apparent that interventionist strategies are still required.

Finally, our study suggest that additional research with more fully specified and perhaps structural models would be helpful in generating a better understanding of the minority business growth process. Hopefully this study will help provide a starting point.

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Appendix A:
Summary Statistics for Variables by Year

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Appendix B:

- B.1 Sales Profile of Standard Metropolitan Statistical Areas, 1972 and 1977
- B.2 Twenty Highest Ranking SMSA's by Receipts Per Capita, 1972 and 1977
- B.3 Twenty Lowest Ranking SMSA's by Receipts Per Capita, 1972 and 1977
- B.4 Twenty Highest Ranking SMSA's by Increase in Receipts/Capita
- B.5 Twenty Lowest Ranking SMSA's by Increase in Receipts/Capita

**METROPOLITAN STATISTICAL AREAS
1972, 1977**

	Total Sales, 1972 (\$ Millions)	Total Sales, 1977 (\$ Millions)	Sales/ Capita 1972	Sales/ Capita 1977	Change in Sales/ Capita	Sa Pe Pe Ch
N, OH	9.89	8.71	\$174	\$149	-\$25	-1
NY, GA	6.95	7.81	\$201	\$190	\$11	
NY, NY	4.80	6.36	\$188	\$233	\$45	2
QUERUE, NM	4.30	6.46	\$598	\$742	\$144	2
ANDRIA, LA	N/A	5.63	N/A	\$148	N/A	1
HEIM, CA	9.85	20.46	\$764	\$1263	\$500	6
ARBOR, MI	4.60	10.21	\$238	\$431	\$193	8
VILLE, NC	N/A	3.83	N/A	\$280	N/A	1
ANTA, GA	126.29	173.58	\$344	\$396	\$52	
NTIC CITY, NJ	7.07	8.76	\$230	\$266	\$37	
STA, GA	17.16	26.32	\$224	\$291	\$67	
IN, TX	9.64	11.86	\$249	\$261	\$12	
RSFIELD, CA	4.48	13.55	\$247	\$668	\$420	1
IMORE, MD	127.49	164.75	\$248	\$308	\$60	
ON ROUGE, LA	23.55	43.58	\$224	\$350	\$126	
UMONT, TX	13.03	22.14	\$179	\$282	\$103	
OXI, MS	4.10	7.64	\$147	\$238	\$92	
MINGHAM, AL	29.78	48.62	\$136	\$213	\$77	
TON, MA	54.29	78.77	\$383	\$455	\$72	
DOGEPORT, CT	4.40	6.50	\$137	\$176	\$38	
FALO, NY	26.77	32.70	\$233	\$283	\$50	
LINGTON, NC	N/A	4.93	N/A	\$268	N/A	
TON, OH	2.32	5.64	\$104	\$241	\$137	1
MPAIGN, IL	1.20	2.92	\$122	\$223	\$100	
RLESTON, SC	18.27	44.43	\$173	\$360	\$187	1
RLESTON, W. VA	1.56	4.80	\$123	\$353	\$230	1

SALES PROFILE OF STANDARD
METROPOLITAN STATISTICAL AREAS
1972, 1977

	Total Sales, 1972 (\$ Millions)	Total Sales, 1977 (\$ Millions)	Sales/ Capita 1972	Sales/ Capita 1977	Change in Sales/ Capita	Sale Per Per Char
ATI, OH	35.18	50.04	\$224	\$301	\$77	34.
AND, OH	104.91	164.18	\$300	\$469	\$169	56.
DO SPRINGS, CO	1.92	3.66	\$132	\$227	\$ 95	72.
EA, SC	25.76	30.31	\$298	\$290	\$ -8	-2.
US, GA	9.71	23.41	\$140	\$300	\$160	114.
US, OH	41.67	47.27	\$365	\$377	\$ 13	3.
CHRISTI, TX	1.99	7.75	\$166	\$610	\$445	268.
FT. WORTH, TX	92.75	133.08	\$261	\$344	\$ 83	31.
ORT, IA	1.90	4.26	\$140	\$282	\$142	101.
OH	29.29	29.31	\$295	\$268	\$-27	-9.
A, BEACH, FL	5.48	11.38	\$224	\$420	\$196	87.
-BOULDER, CO	33.33	43.88	\$606	\$665	\$ 59	9.
NES, IA	3.98	2.41	\$326	\$166	\$-160	-49.
C, MI	283.67	383.39	\$351	\$409	\$ 58	16.
O, TX	2.14	4.73	\$206	\$331	\$125	60.
EVILLE, NC	7.36	11.56	\$137	\$177	\$ 40	29.
MI	15.45	13.58	\$232	\$189	\$-43	-18.
UDERDALE, FL	23.88	31.20	\$288	\$316	\$ 28	9.
YNE, IN	N/A	7.41	N/A	\$313	N/A	N/A
CA	7.26	9.77	\$344	\$414	\$ 70	20.
VILLE, FL	2.11	2.48	\$ 95	\$ 95	0	0.
CON, TX	N/A	6.70	N/A	\$189	N/A	N/A
EN	27.84	51.92	\$236	\$427	\$191	80.

	Sales, 1972 (\$ Millions)	Sales, 1977 (\$ Millions)	Sales/ Capita 1972	Sales/ Capita 1977	Change in Sales/ Capita	
ON, TX	117.54	182.37	\$283	\$384	\$101	
VILLE, AL	4.32	5.89	\$115	\$137	\$ 22	
NAPOLIS, IN	43.50	71.1	\$298	\$471	\$173	
ON, MS	N/A	37.62	N/A	\$329	N/A	
ONVILLE, FL	29.49	42.53	\$216	\$283	\$ 67	
Y CITY, NJ	13.49	14.58	\$204	\$218	\$ 14	
AZOO, MI	3.15	3.85	\$206	\$214	8	
S CITY, MO	38.43	79.29	\$241	\$480	\$239	
VILLE, TN	6.52	9.20	\$233	\$293	60	
ETTE, LA	6.27	22.70	\$254	\$811	557	2
CHARLES, LA	N/A	7.54	N/A	\$217	N/A	
AND, FL	4.90	9.08	\$123	\$195	\$ 72	
NG, MI	4.10	3.98	\$230	\$190	\$-40	-
EGAS, NV	5.36	10.09	\$184	\$284	\$100	
GTON, KY	N/A	8.32	N/A	\$251	N/A	
E ROCK, AK	7.91	16.64	\$129	\$225	\$ 96	
BRANCH, NJ	10.71	16.00	\$268	\$386	\$118	
N-ELYRIA, OH	2.77	3.48	\$159	\$187	\$ 28	
ANGELES, CA	306.39	549.51	\$363	\$625	\$262	
VILLE, KY	32.25	52.82	\$303	\$430	\$127	
OCK, TX	7.42	2.45	\$554	\$164	\$-390	-
BURG, VA	8.17	9.05	\$294	\$302	\$ 8	
N, GA	9.94	10.59	\$142	\$134	\$ - 8	-
OURNE, FL	5.71	6.69	\$250	\$291	\$ 41	
HIS, TN	75.37	166.94	\$238	\$483	\$ 245	1
I, FL	68.79	95.01	\$340	\$391	\$ 51	
AUKEE, WI	27.88	46.06	\$236	\$346	\$110	
EAPOLIS, MN	19.88	44.44	\$565	\$1048	\$483	
LE, AL	18.70	31.67	\$165	\$259	\$ 94	

	Total Sales, 1972 (\$ Millions)	Total Sales, 1977 (\$ Millions)	Sales/ Capita 1972	Sales/ Capita 1977	Change in Sales/ Capita	Pe Ch
E, LA	7.41	9.74	\$234	\$220	\$ -14	
OMERY, AL	N/A	14.72	N/A	\$167	N/A	
ILLE, TN	28.03	45.21	\$240	\$349	\$ 109	
U-SUFFOLK, NY	30.12	50.85	\$229	\$349	\$ 120	
RUNSWICK, NJ	5.01	5.25	\$175	\$164	\$ -11	
AVEN, CT	9.75	13.71	\$212	\$257	\$ 45	
RLEANS, LA	85.89	103.99	\$257	\$285	\$ 28	
ORK, NY	299.35	480.96	\$159	\$253	\$ 94	
K, NJ	85.61	121.65	\$234	\$307	\$ 73	
RT NEWS, VA	18.90	26.22	\$214	\$269	\$ 55	
LK, VA	30.49	50.53	\$156	\$237	\$ 81	
LK, CT	2.63	3.93	\$246	\$333	\$ 87	
OMA CITY, OK	15.23	22.93	\$259	\$336	\$ 77	
, NE	7.68	12.49	\$195	\$301	\$ 106	
OO, FL	20.46	28.33	\$306	\$352	\$ 46	
ERSON, NJ	22.63	10.18	\$412	\$181	\$-231	
COLA, FL	6.97	9.64	\$161	\$208	\$ 47	
A, IL	3.65	4.83	\$225	\$254	\$ 29	
SBURG, VA	N/A	7.99	N/A	\$178	N/A	
DELPHIA, PA	217.57	257.51	\$253	\$295	\$ 42	
IX, AZ	8.96	14.25	\$258	\$340	\$ 82	
BLUFF, AK	3.24	8.03	\$ 93	\$222	\$ 129	
BURG, PA	37.89	52.17	\$221	\$300	\$ 79	
AND, OR	10.85	10.92	\$436	\$373	\$ -63	
KEEPSIE, NY	1.84	3.28	\$119	\$202	\$ 83	
DENCE, RI	4.34	15.79	\$189	\$663	\$ 474	
GH-DURHAM, NC	62.98	85.50	\$588	\$695	\$ 107	
OND, VA	21.16	52.60	\$143	\$321	\$ 178	
SIDE, CA	11.64	22.50	\$207	\$338	\$ 131	

	Total Sales, 1972 (\$ Millions)	Total Sales, 1977 (\$ Millions)	Sales/ Capita 1972	Sales/ Capita 1977	Change in Sales/ Capita	Sa Pe Pe Ch
E, VA	N/A	8.26	N/A	\$334	N/A	
TER, NY	15.69	16.58	\$232	\$235	\$ 3	
ENTO, CA	6.82	14.34	\$160	\$282	\$122	
W, MI	5.18	6.67	\$179	\$206	\$ 27	
UIS, MO	94.51	132.86	\$241	\$333	\$ 92	
S, CA	1.74	15.22	\$132	\$957	\$825	
TONIO, TX	15.50	18.23	\$249	\$267	\$ 18	
EGO, CA	48.99	118.17	\$723	\$1389	\$666	
ANCISCO, CA	140.48	259.50	\$394	\$701	\$307	
SE, CA	22.19	50.76	\$917	\$1775	\$858	
AH, GA	16.00	17.95	\$233	\$204	\$-29	
E, WA	19.11	46.05	\$425	\$703	\$278	
PORT, LA	15.47	26.58	\$141	\$205	\$ 64	
BEND, IN	3.85	8.24	\$194	\$398	\$204	
FIELD, IL	2.65	3.81	\$320	\$346	\$ 26	
FIELD, OH	N/A	2.66	N/A	\$187	N/A	
FIELD, MA	3.41	7.59	\$133	\$279	\$146	
RD, CT	3.42	7.29	\$216	\$450	\$234	
ON, CA	4.43	10.06	\$264	\$559	\$295	
SE, NY	4.35	5.83	\$163	\$208	\$ 45	
, WA	3.17	7.55	\$153	\$304	\$151	
ASSEE, FL	8.53	8.83	\$306	\$259	\$-47	
FL	29.35	38.53	\$249	\$288	\$ 39	
ANA, TX	1.23	2.60	\$ 48	\$ 93	\$ 45	
, OH	18.95	17.58	\$315	\$274	\$-41	
, NJ	6.19	13.13	\$118	\$245	\$127	

	Total Sales, 1972 (\$ Millions)	Total Sales, 1977 (\$ Millions)	Sales/ Capita 1972	Sales/ Capita 1977	Change in Sales/ Capita	Sale Per Perc Chan
K	N/A	9.71	N/A	\$366	N/A	N/A
CA	2.21	6.62	\$122	\$281	\$159	13
, NJ	3.01	3.69	\$173	\$197	\$ 24	1
	3.76	4.43	\$158	\$170	\$ 12	
ON, DC	202.96	331.19	\$267	\$411	\$144	5
M BEACH, FL	13.53	20.92	\$215	\$286	\$ 71	3
KS	7.52	16.54	\$253	\$539	\$285	13
ON, DE	12.44	16.68	\$195	\$242	\$ 47	2
ON, NC	3.45	6.31	\$134	\$218	\$ 84	6
WN, OH	6.75	10.39	\$131	\$192	\$ 61	4

**TWENTY HIGHEST RANKING SMSAs
BY RECEIPTS PER CAPITA**

1972

1977

<u>SMSA</u>	<u>Receipts Per Capita</u>	<u>Rank</u>	<u>SMSA</u>
San Jose, Ca.	917	1	San Jose, Ca.
Anaheim, Ca.	764	2	San Diego, Ca.
San Diego, Ca.	723	3	Anaheim, Ca.
Denver-Boulder, Col.	606	4	Minneapolis, Minn.
Albuquerque, N. Mexico	598	5	Salinas, Ca.
Raleigh-Durham, NC	588	6	Lafayette, Ga.
Minneapolis, Minn.	565	7	Albuquerque, N. Mexico
Lubbock, Texas	554	8	Seattle, Washington
Portland, Oregon	436	9	Raleigh-Durham, NC
Seattle, Washington	425	10	Bakersfield, Ca.
Patterson, NJ	412	11	Denver-Boulder, Col.
Boston, Mass.	383	12	Providence, RI
Columbus, Ohio	365	13	Hamilton, Ohio
Los Angeles, Ca.	363	14	Los Angeles, Ca.
Detroit, Michigan	351	15	Corpus Christi, Texas
Atlanta, Ga.	344	16	Chicago, Ill.
Fresno, Ca.	344	17	Stockton, Ca.
Miami, Florida	340	18	Wichita, Kansas
Chicago, Ill.	329	19	Memphis, Tennessee
Des Moines, Iowa	326	20	Kansas, Mo.

**TWENTY LOWEST RANKING SMSAs
BY RECEIPTS PER CAPITA**

19721977

<u>SMSA</u>	<u>Receipts Per Capita</u>	<u>Rank</u>	<u>SMSA</u>	<u>Re Pe Ca</u>
Texarkana, Texas	\$ 48	1	Texarkana, Texas	9
Pine Bluff, Arkansas	93	2	Gainesville, Florida	9
Gainesville, Florida	95	3	*Galveston, Texas	12
Canton, Ohio	104	4	*Tuscaloosa, Ala.	13
Greenville, SC	111	5	Macon, Ga.	13
Huntsville, Ala.	115	6	Huntsville, Ala.	13
Trenton, NJ	118	7	Alexandria, Ga.	14
Poughkeepsie, NY	119	8	Akron, Ohio	14
Champaign, Ill.	122	9	Greenville, SC	15
Vallejo, Ca.	122	10-11	Lubbock, Texas	16
Charleston, West Va.	123	10-11	New Brunswick, NJ	16
Lakeland, Florida	123	12	*Des Moines, Iowa	16
Little Rock, Ark.	129	12	Montgomery, Ala.	16
Youngstown, Ohio	131	14	Birmingham, Ala.	16
Colorado Springs, Col.	132	15	Waco, Texas	17
Salemas, Ca	132	16	Bridgeport, Conn.	17
Springfield, Mass.	133	17	Fayetteville, NC	17
Wilmington, NC	134	18	Petersburgs, Va.	17
Birmingham, Ala.	136	19	Patterson, NJ	18
Bridgeport, Conn.	137	20-21	Lorrain-Elyria, Ohio	18
Fayetteville, NC	137	*20-21	Springfield, Ohio	18

* Rank not available in 1972

**TWENTY HIGHEST RANKING SMSA's
BY INCREASE IN SALES PER CAPITA**

<u>Rank</u>	<u>SMSA</u>	<u>Increase in Sales/Capita</u>
1.	San Jose, CA	858
2.	Salinas, CA	825
3.	San Diego, CA	666
4.	Lafayette, LA	557
5.	Anaheim, CA	500
6.	Minneapolis, MN	483
7.	Providence, RI	474
8.	Corpus Christi, TX	445
9.	Bakersfield, CA	420
10.	San Francisco, CA	307
11.	Stockton, CA	295
12.	Wichita, KN	286
13.	Seattle, WA	278
14.	Los Angeles, CA	262
15.	Memphis, TN	245
16.	Kansas City, KN	239
17.	Stamford, CT	234
18.	Charleston, WV	230
19.	South Bend, IN	204
20.	Daytona Beach, FL	196

**TWENTY LOWEST RANKING SMSA's
BY SALES GROWTH PER CAPITA**

<u>Rank</u>	<u>SMSA</u>	<u>Change in Per Capita Receipts</u>
1	Lubbock, TX	-390
2	Patterson, NJ	-231
3	Tucson, AZ	-156
4	Portland, OR	-63
5	Tallahassee, FL	-47
6	Flint, MI	-43
7	Toledo, OH	-41
8	Lansing, MI	-40
9	Savannah, GA	-29
10	Dayton, OH	-27
11	Akron, OH	-25
12	Greensboro, NC	-24
13	Monroe, LA	-14
14	New Brunswick, NJ	-11
15-16	Macon, GA	-8
17	Gainesville, FL	0
18	Rochester, NY	+3
19-20	Kalamazoo, MI	+8
19-20	Lynchburg, VA	+8

Appendix C:

- C.1 Firm Profile of Standard Metropolitan Statistical Areas, 1972 and 1977
- C.2 Twenty Highest Ranking SMSA's by Firms Per 1000 Black Population
- C.3 Twenty Lowest SMSA's by Firms Per 1000 Black Population
- C.4 Twenty Highest SMSA's by Increase in Firms Per 1000 Black Population
- C.5 Twenty Lowest SMSA's by Increase in Firms Per 1000 Black Population

METROPOLITAN STATISTICAL AREAS
1972, 1977

	Total Firms 1972	Total Firms 1977	Firms Per 1000 Persons 1972	Firms Per 1000 Persons 1977	Change in Firms Per 1000 Persons
OH	457	571	8.0	10.0	2.0
, GA	236	266	6.7	6.5	-0.2
, NY	211	248	8.0	9.0	1.0
ERQUE, NM	108	154	15.0	17.8	2.8
DRIA, LA	206	206	5.7	5.4	-0.3
M, CA	232	490	18.0	30.0	12.0
BOR, MI	166	227	8.5	9.5	1.0
LLE, NC	96	115	7.5	8.5	1.0
A, GA	3139	3990	8.5	9.2	0.7
IC CITY, NJ	357	370	11.6	11.2	-0.4
A, GA	481	630	6.0	7.0	1.0
, TX	454	625	11.6	14.0	2.4
FIELD, CA	185	251	10.3	12.6	2.3
ORE, MD	3869	4526	7.5	8.5	1.0
ROUGE, LA	794	1087	7.5	8.7	1.2
NT, TX	624	730	8.5	9.5	1.0
, MS	240	247	8.6	7.6	-1.0
GHAM, AL	1110	1182	5.0	5.1	-0.1
, MA	1083	1355	7.6	7.8	0.2
PORT, CT	202	268	6.3	7.3	1.0
O, NY	828	826	7.2	7.1	-0.1
GTON, NC	174	221	10.0	12.0	2.0
, OH	183	222	8.3	9.6	1.3
IGN, IL	93	107	9.3	8.3	-1.0
STON, SC	820	1032	7.7	8.3	0.6
STON, W. VA	113	148	8.7	10.6	1.9
TTE, NC	734	1003	6.3	7.8	1.5

1972, 1977

	Total Firms 1972	Total Firms 1977	Firms Per 1000 Persons 1972	Firms Per 1000 Persons 1977	Change in Firms Per 1000 Persons
SPRINGS, CO	127	187	8.5	11.5	3.0
, SC	795	1108	9.2	10.6	1.4
, GA	438	565	6.3	7.3	1.0
, OH	1450	1690	12.7	13.5	0.8
CHRISTI, TX	139	167	11.6	12.8	1.2
FT WORTH, TX	3342	4194	9.3	10.8	1.5
RT, IA	103	161	7.3	10.7	3.4
OH	1084	1198	11.0	11.0	0.0
BEACH, FL	186	209	7.4	7.7	0.3
BOULDER, CO	837	1094	15.2	16.5	1.3
NES, IA	148	185	12.3	12.3	0.0
MI	5897	6332	7.3	6.8	-0.5
, TX	105	186	10.5	13.3	2.8
VILLE, NC	287	465	5.3	7.1	1.8
MI	407	463	6.0	6.4	0.4
DERDALE, FL	790	1054	9.5	10.5	1.0
NE, IN	147	220	7.0	9.0	2.0
CA	208	298	10.0	12.5	2.5
VILLE, FL	136	171	6.2	6.5	0.3
ON, TX	317	344	9.3	6.3	-3.0
N	760	896	6.4	7.4	1.0
APIDS, MI	200	260	7.7	8.9	1.2
ORO, NC	1063	1395	8.0	9.4	1.4
LLE, SC	518	648	6.2	7.0	0.8
N, OH	120	132	10.5	11.2	0.7
URG, PA	262	342	9.0	10.8	1.8
D, CT	446	537	7.5	9.0	1.5
, TX	5314	6758	12.7	14.2	1.5

1972, 1977

	Total Firms 1972	Total Firms 1977	Firms Per 1000 Persons 1972	Firms Per 1000 Persons 1977	Change in Firms Per 1000 Persons
ITY, NY	313	384	4.7	5.7	1.0
O, MI	157	193	10.4	10.7	0.3
ITY, MO	1418	1981	8.9	12.0	3.1
E, TN	9195	179	6.4	8.9	2.5
E, LA	191	263	7.6	9.4	1.8
RLES, LA	229	288	7.1	8.2	1.1
, FL	269	318	6.7	6.7	0.0
MI	127	161	7.0	7.7	0.7
S, NV	203	348	7.0	9.8	2.8
N, KY	275	350	9.1	10.6	1.5
CK, AR	446	683	7.3	9.2	1.9
NCH, NJ	438	463	11.0	11.3	0.3
LYRIA, OH	138	141	8.0	7.5	-0.5
LES, CA	10760	14699	12.7	16.7	4.0
LE, KY	972	1188	9.0	9.7	0.7
TX	128	148	9.8	9.8	0.0
G, VA	300	366	10.7	12.2	1.5
CA	397	440	5.6	5.5	-0.1
IE, FL	161	204	7.0	9.0	2.0
TN	1762	2419	5.6	7.0	1.4
PL	1486	2157	7.3	9.0	1.7
EE, WI	1055	1338	8.9	10.0	1.1
OLIS, MN	412	587	11.8	14.0	2.2
AL	632	833	5.6	6.8	1.2
LA	223	261	7.0	6.0	-1.0
ERY, AL	440	567	5.8	6.4	0.6
LE, TN	964	1478	8.2	11.4	3.2
SUFFOLK, NY	1111	1200	8.4	8.2	-0.2
	227	252	7.8	7.8	0.0

METROPOLITAN STATISTICAL AREAS
1972, 1977

	Total Firms 1972	Total Firms 1977	Firms Per 1000 Persons 1972	Firms Per 1000 Persons 1977	Change in Firms Per 1000 Persons
K, NJ	2411	2948	6.6	7.4	0.8
RT NEW, VA.	797	999	9.0	10.0	1.0
K, VA	1464	1913	7.5	9.0	1.5
K, CT	126	157	11.4	13.0	1.6
OMA CITY, OK	743	896	12.6	13.2	0.6
, NE	206	479	5.3	11.4	6.1
OO, FL	594	643	8.8	8.0	-0.8
ERSON, NJ	231	343	4.2	6.1	1.9
COLA, FL	329	349	7.6	7.6	0.0
A, IL	112	174	7.0	9.2	2.2
SBURG, FL	316	378	7.5	8.5	1.0
DELPHIA, PA	6005	6710	7.0	7.7	0.7
IX, AZ	376	492	10.7	11.7	1.0
BLUFF, AK	199	304	5.7	8.4	2.7
BURG, PA	1240	1484	7.2	8.5	1.3
AND, OR	322	426	12.9	14.7	1.8
KEEPSIE, NY	105	116	6.5	7.2	0.7
DENCE, RI	162	218	7.0	9.0	2.0
GH-DURHAM, NC	1011	1317	9.4	10.7	1.3
OND, VA	1254	1750	8.5	10.6	2.1
SIDE, CA	647	947	11.5	14.0	2.5
KE, VA	197	248	9.0	10.0	1.0
STER, NY	427	535	6.3	7.5	1.2
MENTO, CA	397	728	9.2	14.2	5.0
AW, MI	122	164	4.2	5.2	1.0
LOUIS, MO	3470	3804	8.8	9.5	0.7
AS, CA	112	223	8.5	14.0	5.5

	Firms 1972	Firms 1977	1000 Persons 1972	1000 Persons 1977	Firms Per 1000 Persons
GA	572	670	8.3	7.6	-0.7
WA	655	872	14.5	13.2	-1.3
RT, LA	593	785	5.4	6.0	0.6
ND, INC	149	229	7.5	10.8	3.3
ELD, IL	103	133	12.8	12.0	-0.8
ELD, OH	147	172	10.5	12.3	1.8
ELD, MA	179	238	6.9	8.9	2.0
, CT	141	239	8.8	14.9	6.1
, CA	143	246	8.4	13.6	5.2
, NY	201	227	7.4	8.1	0.7
WA	161	256	7.7	10.2	2.5
SEE, FL	251	279	9.0	8.2	-0.8
L	975	1112	8.2	8.2	0.0
A, TX	107	145	4.3	5.2	0.9
OH	453	450	7.5	7.0	-0.5
NJ	279	382	5.3	7.0	1.7
AZ	108	166	9.8	12.8	3.0
K	382	511	8.7	10.7	2.0
SA, AL	157	189	5.4	5.5	0.1
TX	172	220	7.4	8.1	0.7
CA	161	339	9.0	14.0	5.0
, NJ	144	165	8.5	8.7	0.2
K	232	259	9.7	10.0	0.3
TON, DC	9453	11645	12.4	14.4	2.0
LM BEACH, FL	481	681	7.6	9.3	1.7
, KS	245	427	8.2	13.8	5.6
TON, DE	472	536	7.3	7.7	0.4
TON, NC	232	296	9.0	10.2	1.2
OWN, OH	387	417	7.6	7.7	0.1

**TWENTY HIGHEST RANKING SMSAs BY
FIRMS PER 1000 POPULATIONS**

<u>Rank</u>	<u>City</u>	<u># of Firms</u>	<u>Rank</u>	<u>City</u>
1	Anaheim, Ca.	18.0	1	Anaheim, Ca.
2	San Jose, Ca.	16.6	2	San Jose, Ca.
3	Denver Boulder, Col.	15.2	3	Albuquerque, N. M.
4	Albuquerque, N. Mexico	15.0	4	Los Angeles, Ca.
5	Seattle, Washington	14.5	5	Denver-Boulder, Co.
6	Portland, Oregon	12.9	6	San Francisco, Ca.
7	Springfield, Ill.	12.8	7	Stanford, Conn.
8-10	Columbus, Ohio	12.7	8	Portland, Oregon
8-10	Houston, Texas	12.7	9	Washington, DC
8-10	Los Angeles, Ca.	12.7	10-11	Houston, Texas
11	Oklahoma City	12.6	10-11	Sacramento, Ca.
12	Washington, DC	12.4	12-16	Austin, Texas
13	Des Moines, Iowa	12.3	12-16	Minneapolis, Minn.
14	Minneapolis, Minn.	11.8	12-16	Riverside, Ca.
15	San Francisco, Ca.	11.7	12-16	Salinas, Ca.
16-18	Austin, Texas	11.6	12-16	Tallejo, Ca.
16-18	Atlantic City, NJ	11.6	17	Wichita, Kansas
16-18	Corpus Christi, Texas	11.6	18	San Diego, Ca.
19	Riverside, Ca.	11.5	19	Stockton, Ca.
20	Norwalk, Conn.	11.4	20	Columbus, Ohio

**TWENTY LOWEST RANKING SMSAs
BY FIRMS PER 1000 POPULATION**

<u>1972</u>			<u>1977</u>		
<u>Rank</u>	<u>City</u>	<u># of Firms</u>	<u>Rank</u>	<u>City</u>	<u># of Firms</u>
1-2	Patterson, NJ	4.2	1	Birmingham, Ala.	5.0
2-2	Saginaw, Michigan	4.2	2-3	Saginaw, Michigan	5.0
	Texarkana, Texas	4.3	2-3	Texarkana, Texas	5.0
	Jersey City, NJ	4.7	4	Alexandria, La.	5.0
	Huntsville, Ala.	4.8	5-6	Macon, Ga.	5.0
	Birmingham, Ala.	5.0	5-6	Tuscaloosa, Ala.	5.0
3-10	Chattanooga, Tenn.	5.3	7	Jersey City, NJ	5.0
4-10	Fayetteville, NC	5.3	8	Huntsville, Ala.	5.0
5-10	Omaha, Nebraska	5.3	9-10	Monroe, Ga.	6.0
6-10	Trenton, NJ	5.3	9-10	Shreveport, La.	6.0
7-12	Shreveport, La.	5.4	11	Patterson, NJ	6.0
8-12	Tuscaloosa, Ala.	5.4	12	Galveston, Texas	6.0
9-15	Macon, Ga.	5.6	13-14	Flint, Michigan	6.0
10-15	Memphis, Tenn.	5.6	15-16	Albany, Ga.	6.0
11-17	Alexandria, La.	5.7	15-16	Gainesville, Florida	6.0
12-17	Pine Bluff, Ark.	5.7	17	Lakeland, Fla.	6.0
13-18	Montgomery, Ala.	5.8	18-19	Detroit, Michigan	6.0
14-19	New York, New York	5.8	18-19	Mobile, Ala.	6.0
15-21	Augusta, Ga.	6.0	20-24	Augusta, Ga.	7.0
16-21	Flint, Michigan	6.0	20-24	Chattanooga, Tenn.	7.0
			20-24	Memphis, Tenn.	7.0
			20-24	Toledo, Ohio	7.0

**TWENTY HIGHEST RANKING SMSA's BY INCREASE
IN FIRMS PER 1000 POPULATION**

<u>Rank</u>	<u>SMSA</u>	<u>Increase in Firms/1000 Pop.</u>
1.	Anaheim, CA	12
2.	San Jose, CA	8.4
3.	Omaha, NE	6.1
4.	Stamford, CT	6.1
5.	Wichita, KS	5.6
6.	Salinas, CA	5.5
7.	Stockton, CA	5.2
8.	Sacramento, CA	5.0
9.	Vallejo, CA	5.0
10.	Los Angeles, CA	4.0
11.	San Francisco, CA	3.9
12.	Davenport, IA	3.4
13.	South Bend, IN	3.3
14.	Nashville, TN	3.2
15.	San Diego, CA	3.0
16.	Tucson, AZ	3.0
17.	Colorado Springs, CO	3.0
18.	Kansas City, MO, KN	3.0
19.	Albuquerque, NM	2.8
20.	El Paso, TX	2.8

**TWENTY LOWEST RANKING SMSA's BY
GROWTH IN FIRMS PER 1000 POPULATION**

<u>Rank</u>	<u>SMSA</u>	<u>Change in # of Firms</u>
1	Galveston, TX	-3.0
2	Seattle, WA	-1.3
3-5	Champaign, ILL	-1.0
3-5	Biloxi, MS	-1.0
3-5	Monroe, LA	-1.0
6-8	Orlando, FL	-0.8
6-8	Tallahassee, FL	-0.8
9	Savannah, GA	-0.7
10-12	Toledo, OH	-0.5
10-12	Lorain, OH	-0.5
10-12	Detroit, MI	-0.5
13	Atlantic City, NJ	-0.4
14	Alexandria, LA	-0.3
15-16	Nassau-Suffolk, NY	-0.2
17-18	Macon, GA	-0.1
19-22	Dayton, OH	0.0
19-22	Des Moines, IA	0.0
19-22	New Brunswick, NJ	0.0
19-22	Lakeland, FL	0.0

Appendix D:

SBA Loans by Standard Metropolitan Statistical Area

80	Akron, OH	302.6	141
120	Albany, GA	207.8	29
160	Albany, NY	209.0	64
200	Albuquerque, NM	217.0	138
220	Alexandria, LA	201.1	191
360	Anaheim, CA	58.0	312
440	Ann Arbor, MI	126.4	576
480	Asheville, NC	10.7	0
520	Atlanta, GA	2460.2	3768
560	Atlantic City, NJ	562.5	251
600	Augusta, GA	206.2	1003
640	Austin, TX	100.0	505
680	Bakersfield, CA	142.5	136
720	Baltimore, MD	5750.9	8015
760	Baton Rouge, LA	813.6	1622
840	Beaumont, TX	580.0	1030
920	Biloxi, MS	128.0	377
000	Birmingham, AL	1085.6	1320
120	Boston, MA	7578.7	4811
160	Bridgeport, CT	843.5	766
280	Buffalo, NY	2789.3	1470
300	Burlington, NC	0.0	105
320	Canton, OH	208.5	374
400	Champaign, IL	334.8	471
440	Charleston, SC	86.7	335
480	Charleston, W.VA	272.7	427
560	Chattanooga, TN	206.1	162
600	Chicago, IL	19043.6	8788
640	Cincinnati, OH-KY-IN	1363.6	1062
680	Cleveland, OH	5226.5	4116
720	Colorado Springs, CO	112.2	491
760	Columbia, SC	271.0	613
800	Columbus, GA-AL	575.9	127
840	Columbus, OH	1387.6	2641
880	Corpus Cristi, TX	0.0	211
920	Dallas-Fort Worth	2085.0	2669
960	Davenport-RI, Moline, IA, IL	355.5	326
000	Dayton, OH	1692.6	1449
020	Daytona Beach, FL	81.7	78
080	Denver-Boulder, CO	2121.6	2233
120	Des Moines, IA	1060.3	142
160	Detroit, MI	12654.0	9430
320	El Paso, TX	199.4	309
560	Fayetteville, NC	51.0	428
540	Flint, MI	585.4	1207
80	Fort Lauderdale, Hollywood, FL	315.9	285
60	Fort Wayne, IN	159.3	1202
40	Fresno, CA	201.0	193

0000	Gainesville, FL	60.3	99
920	Galveston, Texas City- TX	113.2	130
960	Gary Hannand, E. Chicago, IL	3398.6	1206
0000	Grand Rapids, MI	319.3	138
1120	Greensboro,WS-HP-,NC	1082.1	308
1160	Greenville, - Spartenburg, SC	95.0	224
1200	Hamilton-Middleton, OH	32.3	23
1240	Harrisburg, PA	28.8	90
1280	Hartford, CT	1529.2	1206
1360	Houston, TX	2920.4	8999
1440	Huntsville, AL	137.0	126
1480	Indianapolis, IN	2613.5	3135
1560	Jackson, MI	1084.0	1335
1600	Jacksonville, FL	714.9	1217
1640	Jersey City, NJ	429.0	448
1720	Kalamazoo-Portage, MI	248.8	346
1760	Kansas City, MO-KS	4003.9	2733
1840	Knoxville, TN	312.2	98
1880	Lafayette, LA	319.8	176
1960	Lake Charles, LA	28.0	78
1980	Lakeland-WH, FL	172.0	15
2040	Lansing- E. Lansing, MI	25.0	274
2120	Las Vegas, NV	165.9	751
2280	Lexington, KY	143.3	152
2400	Little Rock-N. L. Rock, AK	766.2	704
2410	Long Branch-Asbury Park, NJ	713.8	257
2440	Lorain-Elyria, OH	417.2	0
2480	Los Angeles, Long Branch, CA	16163.5	16006
2520	Louisville, KY-IN	1327.6	1039
2600	Lubbock, TX	97.3	50
2640	Lynchburg, VA	136.6	100
2680	Macon, GA	244.9	77
2900	Melbourne- Cocoa, FL	131.5	115
2920	Memphis, TN-AR-MS	909.0	1421
3000	Miami, FL	1988.1	582
3080	Milwaukee, WI	3442.6	472
3120	Minneapolis, St. Paul, MN-WI	1771.8	1420
3160	Mobile, AL	817.1	409
3200	Monroe, LA	23.5	387
3240	Montgomery, AL	82.0	567
3360	Nashville-Davison, TN	491.6	436
3380	Nassau-Suffolk, NY	2309.5	4946
3460	New Brunswick-Perth-NJ	162.5	281
3480	New Haven, CT	1011.1	1156
3560	New Orleans, LA	989.1	3345
3600	New York, NY-NJ	15405.2	17534
3640	Newark, NJ	6743.4	4438

<u>MSA</u>	<u>NAME</u>	(1000's) <u>SBA 72</u>	<u>SB</u>
880	Newport News-Hampton, VA	797.8	397
720	Norfolk-Virginia Beach-Portsmouth, VA	1437.3	2187
760	Norwalk, CT	0.0	0
880	Okalahoma City, OK	491.7	826
920	Omaha, NE-IA	848.5	2055
960	Orlando, FL	126.2	982
040	Patterson-Clifton, NJ	1068.6	370
080	Pensacola, FL	72.6	289
120	Peoria, IL	541.2	103
140	Petersburg, VA	205.8	508
160	Philadelphia, PA-NJ	5190.1	9800
200	Phoenix, AZ	604.6	1114
240	Pine Bluff, AZ	158.7	11
280	Pittsburg, PA	2074.2	2346
440	Portland, OR-WA	1168.9	968
60	Poughkeepsie, NY	88.0	184
80	Providence, RI-MA	1497.3	2026
440	Raleigh-Durham, NC	307.0	1261
60	Richmond, VA	3167.8	1774
80	Riverside-Ontaria, CA	1092.1	935
000	Roanoke, VA	383.4	168
440	Rochester, NY	1180.4	907
20	Sacramento, CA	559.2	319
60	Saginaw, MI	447.1	394
440	St. Louis, MO-IL	3575.0	5593
20	Salinas-Seaside-Monterey, CA	22.5	364
40	San Antonio, TX	779.0	534
20	San Diego, CA	1230.9	676
60	San Francisco, Oakland, CA	7351.4	6189
00	San Jose, CA	494.8	598
20	Savannah, GA	32.2	313
00	Seattle-Everett, WA	2434.6	1230
80	Shieveport, LA	301.0	384
00	South Bend, IN	317.0	539
80	Springfield, IL	178.1	115
60	Springfield, OH	0.0	0
00	Springfield, Chicopee, Holyoke-MA-CT	1106.5	722
40	Stamford, CT	0.0	0
20	Stockton, CA	162.2	676
60	Syracuse, NY	649.7	498
00	Tacoma, WA	394.4	280
40	Tallahassee, FL	543.6	207
80	Tampa-St. Petersburg, FL	350.3	159
60	Texarkana, TX-Texarkana, AZ	80.5	132
00	Toledo, OH-MI	629.1	1315

<u>SMSA</u>	<u>NAME</u>	<u>SBA 72</u>	<u>SBA</u>
8480	Trenton, NJ	358.0	80
8520	Tucson, AZ	316.5	7
8560	Tulsa, OK	446.5	24
8600	Tuscaloosa, AL	116.7	10
8640	Tyler, TX	169.9	
8720	Vallejo-Fairfield-Wapa, CA	173.3	36
8760	Vineland-Millville, Bridgeton, NJ	33.5	24
8800	Waco, TX	24.0	10
8840	Washington, DC-MD-VA	8890.7	1180
8960	West Palm, Beach-Boca-Raton, IL	181.8	50
9040	Wichita, KS	1891.8	244
9160	Wilmington, DC-NJ-MD	350.6	30
9200	Wilmington, NC	71.3	7
9320	Youngstown-Warren, OH	308.1	48

Appendix E:

Black Commercial Bank Loans By SMSA

**BLACK COMMERCIAL BANK LOANS
IN SMSA's FOR 1972-73 and 1976-77**

<u>SMSA CODE</u>	<u>NAME</u>	<u>LOANS '72 + '73</u> (millions \$)	<u>LOANS '76 + '77</u> (millions \$)
520	Atlanta, GA	32.16	33.28
1120	Boston, MA	10.14	10.02
1600	Chicago, ILL	114.79	200.33
1680	Cleveland, OH	0.00	28.50
1760	Columbia, SC	4.32	4.25
2000	Dayton, OH	8.26	8.27
2160	Detroit, MI	15.07	26.10
2560	Fayetteville, NC	0.00	2.77
3120	Greensboro, NC	2.77	6.29
3360	Houston, TX	13.04	18.24
3480	Huntsville, AL	5.48	24.40
3600	Jacksonville, FL	0.00	2.29
3760	Kansas City, MO-KS	25.60	18.42
4480	Los Angeles, CA	34.08	31.42
4520	Louisville, KY-IN	0.00	3.28
4920	Memphis, TN	19.43	20.35
5080	Milwaukee, WI	8.12	6.22
5120	Minneapolis, MN	13.85	9.95
5160	Mobile, AL	0.00	4.09
5360	Nashville, TN	6.28	7.03
5380	Nassau-Suffolk, NY	8.91	0.00
5560	New Orleans, LA	5.39	28.90
5600	New York, NY	46.38	28.17
5640	Newark, NJ	0.68	9.05
5720	Norfolk, VA	8.11	8.96
5880	Oklahoma City, OK	0.45	7.02
5920	Omaha, NE	0.05	3.34
6280	Pittsburg, PA	0.00	4.26

		(millions \$)	(millions \$)
040	St. Louis, MO	16.44	12.85
320	San Diego, CA	0.64	5.38
60	San Francisco, CA	6.09	17.78
20	Savannah, GA	6.88	14.74
00	Seattle, WA	6.57	8.89
80	Springfield, ILL	3.07	4.21
60	Tulsa, OK	4.15	7.28
40	Tyler, TX	0.00	6.92
40	Washington, D.C.	37.51	65.48
60	West Palm Beach, FL	0.00	3.10
40	Wichita, KS	0.00	4.77

Appendix F:
Correlation Matrix

ATION COEFFICIENTS

OF 99.00000 IS PRINTED
EFFICIENT CANNOT BE COMPUTED.

	FIRMDIF	FWEHDIF	PRMNDIF	BBLNDIF	SBADIF	SBANE	SBANC	SBASO	UNEMDIF	PBLKDIF	SUINDIF
1	0.00000	0.57758	0.47024	0.08402	0.15548	0.09359	0.08824	-0.03414	-0.20028	-0.13033	0.08526
2	0.57758	1.00000	0.30282	0.13357	-0.04867	0.19878	-0.23490	-0.05066	-0.20477	-0.24554	0.18567
3	0.47024	0.30282	1.00000	0.07174	0.07174	0.13890	-0.04521	-0.01211	-0.20477	-0.24554	0.18567
4	0.08402	0.13357	0.07174	1.00000	0.13051	0.04498	0.12922	-0.05826	0.04349	-0.02922	0.03440
5	0.15548	-0.04867	0.07174	0.13051	1.00000	0.33193	0.12922	-0.05826	0.04349	-0.02922	0.03440
6	0.09359	0.19878	0.04498	0.04498	0.33193	1.00000	-0.05198	-0.05821	-0.00981	-0.09396	0.23040
7	0.33193	0.12922	0.12922	0.12922	0.12922	0.05198	1.00000	-0.04359	0.16721	-0.01339	0.00455
8	0.08402	-0.04521	0.04521	-0.05826	0.22476	-0.05821	-0.04359	1.00000	-0.04359	0.03646	-0.05135
9	0.12922	0.04521	0.04521	0.05826	0.22476	-0.05821	-0.04359	1.00000	-0.04359	0.03646	-0.05135
10	0.20028	-0.20477	0.20477	0.08402	0.17616	-0.00981	0.16721	-0.04544	1.00000	-0.11161	0.16964
11	0.13033	0.24554	-0.02922	0.12537	-0.14104	0.09396	-0.01339	0.03646	-0.11161	1.00000	0.16964
12	0.08526	0.18567	0.03440	0.03277	0.04915	0.23040	-0.00455	-0.05135	0.06224	-0.16964	1.00000
13	0.04003	-0.04933	0.07912	0.06792	-0.02377	0.25802	-0.01514	0.13190	-0.01303	0.03731	0.12240
14	0.16631	0.21827	0.07457	0.11069	0.26481	0.22304	0.05387	-0.02633	0.10431	-0.23065	0.40441
15	0.05890	0.09458	0.02701	0.07471	0.08078	0.21616	-0.18087	-0.08397	0.12709	0.19326	0.17418
16	0.29426	-0.15650	0.00854	0.09419	-0.20181	0.13605	-0.12743	-0.08729	-0.01928	0.11385	-0.02408
17	0.24366	0.00439	0.26144	0.12621	0.23407	0.18857	0.11882	-0.08693	0.20614	0.04057	-0.43547
18	-0.31266	-0.08565	-0.17964	0.12067	0.08545	0.30276	-0.06232	0.03662	-0.28985	0.39755	-0.27555
19	0.34532	0.04245	0.05309	-0.21050	-0.22146	-0.17488	-0.12938	0.07394	-0.29825	0.18325	-0.22748
20	0.42776	0.15139	0.16679	-0.08221	-0.24842	0.38002	-0.52470	-0.08107	-0.29371	0.20163	-0.20370
21	0.08133	0.07470	0.01090	-0.09129	-0.77690	0.38002	-0.52470	-0.08107	-0.29371	0.15730	-0.04588
22	0.05462	0.02745	0.00145	0.13267	0.13278	0.07670	0.13933	-0.08945	0.06502	-0.10886	0.12809
23	0.05715	0.08500	0.05640	-0.66115	-0.17375	0.02019	-0.15048	0.00387	-0.14491	0.14074	0.10042
24	0.19671	0.03655	0.19121	0.11839	-0.23649	-0.16561	-0.13873	0.00082	-0.18625	0.19375	-0.56782
25	0.10569	-0.29644	-0.13248	-0.01288	0.14306	0.64266	-0.38088	0.09058	0.15867	0.14010	-0.28118
26	0.05229	0.02564	-0.11379	0.10794	-0.12837	0.14992	-0.34668	0.12573	-0.26388	0.21343	0.18381
27	0.22592	-0.02712	0.11709	0.10380	0.24796	0.25052	-0.18759	-0.23237	0.19674	-0.23798	0.31517
28	0.03115	-0.04412	0.03977	0.02131	0.05290	0.04326	0.03773	0.06948	-0.08896	0.22112	0.01519
29	0.10994	0.08880	-0.00322	-0.07598	-0.04831	0.03774	-0.04521	-0.09376	0.06191	-0.03557	0.04431
30	0.01235	0.11145	0.15547	-0.19000	-0.13889	0.10513	-0.04750	0.02562	-0.04246	0.12131	0.10129
31	0.03221	-0.10223	-0.09811	0.06609	0.03203	0.02822	-0.03704	0.06451	0.02714	-0.08618	-0.03938
32	0.03341	0.05194	0.04933	0.08353	0.04831	-0.12317	-0.16644	0.12580	-0.02714	0.01104	-0.03348
33	0.07046	0.05102	0.05102	0.01587	-0.05097	-0.05852	-0.01251	-0.05270	0.15963	0.05544	0.01961
34	0.03915	0.04589	-0.03915	0.18999	-0.03363	0.05418	-0.01991	0.08237	-0.14908	-0.02441	-0.05074
35	0.10262	-0.29094	-0.14736	-0.01268	0.14178	-0.63828	0.08053	0.09019	0.14909	0.15328	0.29732
36	0.07340	-0.04851	0.13750	0.11041	0.14895	-0.32235	-0.32235	0.12491	-0.25698	0.22775	-0.20686
37	0.18396	0.02821	-0.08885	0.08992	-0.22838	0.24324	-0.18214	-0.26713	0.19161	-0.19570	0.25008
38	0.04679	-0.03982	0.13127	-0.25505	-0.07668	0.04112	-0.10184	-0.04671	-0.17270	-0.06369	0.06366

	BFINDIF	BLKEDIF	SEG2	BFAMIN2	PERBLK2	PRMN72	BLKED2	SBA72	FSCALE2	BLN72	SURINC2
F	0.16631	-0.05890	-0.29426	0.24366	-0.31266	0.34532	0.42776	0.08133	-0.05462	-0.05715	0.1967
F	0.21827	0.09458	-0.15650	0.00439	-0.08565	0.04245	0.15139	0.07470	0.02745	-0.08500	0.03655
F	0.27457	0.02701	-0.00854	0.26144	-0.17964	0.05309	0.16679	0.01090	0.00145	0.05640	0.1912
F	0.11069	0.07471	0.09419	-0.12321	0.12067	-0.21050	0.08221	-0.09129	0.13267	-0.66115	-0.11833
F	0.12271	0.26481	0.00878	-0.20181	-0.23407	-0.22146	-0.24842	0.07760	0.13278	-0.17375	-0.23644
F	0.22304	0.21616	0.00107	-0.13605	0.18857	-0.30232	-0.17488	-0.38002	0.07670	0.02019	-0.16556
F	0.05367	0.18087	0.00106	0.12743	0.11882	0.06276	0.12938	-0.52470	0.13933	-0.15048	-0.13877
F	-0.02637	-0.08397	-0.10367	0.08729	-0.08693	0.03662	0.07394	-0.08107	-0.08945	-0.00387	-0.08625
F	-0.10431	0.12709	-0.01928	-0.25905	0.20614	-0.18325	0.29855	-0.29371	0.06502	-0.14491	-0.18692
F	-0.23085	0.11385	0.39795	0.39795	0.04057	0.18325	0.20163	-0.04538	-0.12809	0.14074	-0.19375
F	0.40441	0.02408	-0.02408	-0.43947	0.07507	-0.22748	0.20370	-0.04538	0.12809	0.10042	0.06784
F	-0.06139	-0.10846	-0.39346	0.19267	0.07207	0.16587	0.03571	-0.04881	0.05099	-0.06434	0.07244
F	1.00000	0.32485	-0.04655	-0.19946	0.16128	-0.02555	0.13865	-0.13032	0.04096	-0.05578	-0.13444
F	0.32485	1.00000	0.09407	-0.48697	0.51530	-0.22934	-0.64769	-0.40388	-0.00919	-0.07573	-0.28200
F	-0.04655	0.09407	-0.04961	-0.04961	0.35157	-0.22671	0.23536	-0.09948	-0.06219	0.10264	0.19033
F	-0.19946	-0.48697	0.04961	1.00000	0.54307	0.51814	0.70176	0.35063	-0.08598	0.10592	0.70822
F	0.16128	0.51530	-0.35157	-0.54307	1.00000	-0.46706	0.70510	-0.45556	-0.02646	-0.01632	-0.39933
F	-0.02555	-0.22934	0.22671	0.51814	-0.46706	1.00000	0.53473	0.38406	-0.09859	0.15995	-0.50100
F	-0.13865	-0.64769	0.23536	0.70176	-0.70510	0.53473	1.00000	0.48572	-0.10392	0.14164	0.50100
F	-0.13032	-0.40388	-0.09948	0.35063	-0.45556	0.38406	0.48572	1.00000	-0.18639	0.18406	0.33514
F	0.04096	0.00919	0.06219	-0.08598	0.02646	-0.09859	0.10392	-0.18639	1.00000	0.09441	-0.16622
F	-0.05578	0.07573	0.10264	0.10592	-0.1632	0.15995	0.14164	0.18406	0.09441	1.00000	0.19440
F	-0.13446	-0.28201	0.19035	0.70827	-0.39939	0.48431	0.50100	0.33514	-0.16628	-0.19440	1.00000
F	-0.34580	-0.22663	0.07178	0.21631	-0.18018	0.26453	0.13823	0.20975	-0.06934	0.10255	0.22388
F	-0.13982	-0.24126	0.11746	-0.72745	-0.65358	-0.43924	-0.37655	-0.24255	0.05528	0.18411	0.21977
F	-0.29021	0.53795	0.19910	-0.72745	0.23397	0.03204	-0.59756	-0.47033	-0.07823	-0.05620	-0.46210
F	-0.06384	-0.00620	0.37517	0.20026	0.23397	0.33204	0.20959	-0.06480	-0.14829	0.12321	0.07566
F	0.02601	0.15731	-0.35895	-0.08613	0.28149	-0.11779	0.08853	-0.06243	-0.10128	0.06997	-0.07566
F	0.09571	0.12732	-0.23218	0.12825	0.04337	0.15278	-0.20959	0.11637	-0.12399	0.22535	-0.07443
F	-0.03228	0.04903	0.05930	-0.19093	0.02439	0.00664	0.00821	-0.08943	0.12399	0.13981	0.12188
F	-0.06017	-0.04496	0.04961	-0.05685	0.19893	-0.08049	0.02715	0.02323	-0.17834	-0.09206	0.08344
F	0.05497	0.06261	0.01513	0.14393	0.05812	0.12640	0.05106	0.09653	-0.10623	0.01244	0.08344
F	0.05047	-0.05985	-0.11402	0.05030	-0.05318	0.04345	0.08445	0.14115	-0.09423	0.18385	-0.02755
F	-0.36682	-0.32629	-0.06810	-0.23073	-0.17321	0.27483	0.14046	-0.19794	0.07256	-0.10302	0.24422
F	-0.12527	-0.23693	0.11708	0.54679	-0.29878	0.12426	0.23115	0.21240	0.06367	0.16931	0.22170
F	-0.27854	0.47380	0.23443	-0.59366	0.58275	-0.37895	-0.47978	-0.42622	0.04468	-0.03002	-0.32241
F	-0.03778	-0.06095	-0.00363	0.04548	-0.07007	0.13102	0.15801	0.16745	0.09130	0.58498	0.06933

NC-REGION	SOUTH	LARGE	MEDIUM	BLKPKCH	FSCAL1	FSCAL2	FSCAL3	FSCAL4	REGINC1	REGINC2
-0.05229	-0.22952	-0.03115	-0.10994	-0.01235	-0.03221	-0.03341	-0.07046	-0.03915	-0.10262	-0.0734040
-0.02564	-0.02712	-0.04412	-0.08880	-0.01145	-0.10223	-0.05194	-0.19394	-0.04589	-0.29094	-0.04851
-0.11379	-0.11709	-0.03377	-0.03022	-0.15547	-0.09811	-0.05102	-0.03913	-0.14736	-0.13750	-0.11031
-0.10794	-0.10380	-0.02131	-0.07598	-0.19000	-0.06609	-0.08353	-0.01587	-0.18999	-0.01268	-0.11041
-0.12837	-0.24796	-0.05290	-0.04831	-0.13889	-0.03203	-0.04831	-0.05097	-0.03363	-0.14178	-0.11041
-0.14992	-0.25052	-0.04326	-0.05774	-0.10513	-0.02282	-0.12317	-0.05952	-0.05418	-0.63828	-0.14895
-0.34665	-0.18759	-0.00773	-0.04521	-0.04750	-0.03704	-0.01644	-0.01251	-0.01991	-0.08053	-0.32235
-0.12572	-0.23237	-0.06948	-0.09376	-0.02562	-0.06451	-0.12580	-0.05270	-0.08237	-0.09019	-0.32235
-0.25388	-0.19574	-0.08896	-0.06191	-0.04246	-0.11964	-0.02714	-0.15563	-0.18488	-0.14909	-0.25698
-0.21343	-0.23796	-0.22112	-0.03557	-0.12131	-0.08618	-0.01104	-0.05544	-0.02441	-0.15328	-0.25698
-0.15381	-0.31517	-0.04519	-0.04431	-0.12129	-0.03938	-0.03248	-0.01961	-0.05074	-0.28732	-0.20666
-0.07057	-0.28025	-0.11298	-0.22793	-0.27145	-0.10296	-0.01272	-0.15443	-0.01043	-0.41654	-0.08593
-0.13982	-0.29021	-0.06384	-0.02601	-0.09571	-0.03228	-0.06017	-0.05497	-0.06057	-0.36682	-0.12537
-0.24126	-0.53795	-0.00620	-0.12731	-0.15772	-0.04903	-0.04496	-0.06261	-0.05985	-0.32629	-0.23653
-0.11746	-0.19910	-0.37517	-0.35895	-0.23218	-0.05930	-0.04961	-0.01513	-0.11402	-0.06810	-0.11708
-0.51942	-0.72745	-0.02026	-0.08513	-0.12825	-0.01309	-0.05685	-0.14993	-0.05030	-0.23073	-0.54675
-0.30871	-0.65338	-0.23397	-0.28149	-0.04337	-0.02439	-0.01983	-0.05812	-0.05318	-0.17321	-0.29878
-0.15765	-0.43924	-0.03204	-0.11779	-0.15278	-0.00664	-0.08049	-0.12640	-0.04345	-0.27483	-0.23115
-0.23128	-0.59756	-0.08853	-0.20969	-0.08245	-0.00821	-0.02715	-0.05106	-0.08445	-0.14046	-0.23115
-0.24255	-0.47033	-0.06243	-0.06480	-0.11637	-0.08943	-0.02323	-0.09653	-0.14115	-0.19794	-0.21404
-0.05528	-0.7823	-0.10128	-0.14829	-0.12399	-0.12640	-0.17934	-0.10623	-0.09423	-0.07256	-0.06367
-0.18411	-0.05620	-0.06997	-0.12321	-0.22535	-0.13981	-0.09206	-0.01244	-0.18385	-0.10302	-0.16931
-0.1974	-0.32229	-0.07566	-0.12566	-0.07433	-0.12188	-0.01760	-0.08345	-0.02752	-0.24424	-0.23178
-0.23328	-0.39581	-0.04482	-0.06560	-0.30578	-0.09326	-0.06335	-0.03466	-0.06909	-0.99574	-0.23178
-0.00000	-0.54107	-0.00453	-0.01376	-0.15394	-0.16331	-0.05735	-0.09408	-0.03201	-0.23229	-0.99353
-0.54107	1.00000	0.01819	-0.20155	-0.11095	-0.04184	-0.01546	-0.09111	-0.07886	-0.38815	-0.53757
-0.00453	0.01819	1.00000	-0.18921	-0.24080	-0.14271	-0.07580	-0.07177	-0.02910	-0.05596	-0.00916
-0.01376	0.20155	-0.18921	1.00000	-0.06317	-0.00169	-0.13945	-0.07104	-0.05936	-0.07473	-0.00916
-0.15394	0.11095	-0.24080	-0.06317	1.00000	-0.03046	-0.02476	-0.13036	-0.10398	-0.30614	-0.17333
-0.16331	0.04184	-0.14271	-0.00169	-0.03046	-0.00000	-0.27808	-0.16522	-0.14902	-0.09112	-0.07187
-0.05735	-0.07580	-0.07580	-0.13945	-0.02476	-0.27808	1.00000	-0.23312	-0.20900	-0.05775	-0.09147
-0.09408	-0.09111	-0.07177	-0.10104	-0.13036	-0.16522	-0.23312	-0.00000	-0.12493	-0.04117	-0.05287
-0.03201	-0.07886	-0.02910	-0.05936	-0.10398	-0.14902	-0.20900	-0.12493	-0.00000	-0.07898	-0.03201
-0.32029	-0.38815	-0.05586	-0.07443	-0.30614	-0.09172	-0.05775	-0.04117	-0.07898	-0.00000	-0.32029
-0.93953	-0.53757	-0.09980	-0.00516	-0.15723	-0.17339	-0.07187	-0.09147	-0.05287	-0.23079	-0.93953
-0.97087	-0.03964	-0.03964	-0.21994	-0.07305	-0.07663	-0.02858	-0.09396	-0.09225	-0.37688	-0.52197
-0.15377	-0.06698	-0.03827	-0.04071	-0.08426	-0.03131	-0.04751	-0.02706	-0.18858	-0.07392	-0.17394

BBLNSQ

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